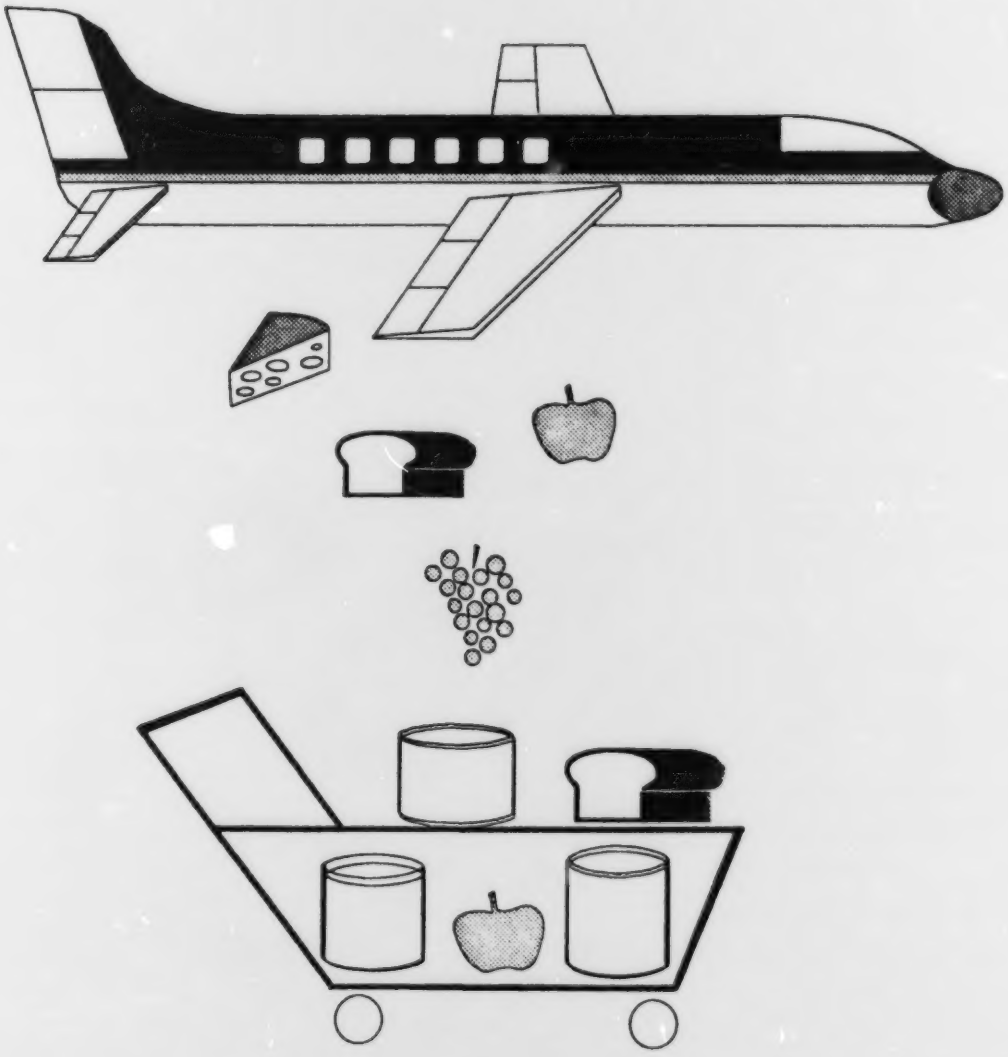
Indian and Northern Affairs Canada
Affaires indiennes et du Nord Canada

FOOD FOR THE NORTH

REPORT OF THE AIR STAGE SUBSIDY REVIEW



Canada

FOOD FOR THE NORTH

REPORT OF THE AIR STAGE SUBSIDY REVIEW

Published under the authority of the
Hon. Tom Siddon, P.C., M.P.,
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FOOD FOR THE NORTH

ERRATA

P. 5 The first sentence of the last paragraph in the section entitled "The Air Stage System" should read as follows:

"First Air, a major air carrier into the Baffin, was purchased by Makivik Corporation, the owner of Air Inuit which serves northern Quebec."

P. 69 Table 3. The name, "Lourdes-de-Blanc-Sablon," should appear in the first column in the first line immediately under "Quebec North Shore".

91-04993/

PREFACE

This report is the result of a collaborative effort on the part of several federal departments and agencies and of the hundreds of individuals who presented their views at community meetings, in bilateral discussions or in written submissions during the past year. Although the Department of Indian Affairs and Northern Development has never been responsible for the air stage subsidy, it was entirely appropriate for the department to coordinate this review, given the importance of the air stage subsidy to northern and native people. However, the review would clearly have been impossible without the full cooperation which the department received from all federal agencies, provincial and territorial governments, businesses, and the general public.

While many federal departments assisted in various ways, the contributions of Health and Welfare Canada and Agriculture Canada were especially significant. A consultant representing the former department attended all the community meetings and conducted the research on native health and nutrition which was central to the analysis of the impact of the reductions in the air stage subsidy, and assisted in conducting the food price surveys. Agriculture Canada processed the survey data to produce the information on the cost of a nutritious diet and conducted the nutritional analysis of the Northern Food Basket developed specifically for this review.

The information on the social assistance payments and beneficiaries presented in Chapter III was obtained from the relevant provincial and territorial departments and from the regional offices of the Department of Indian Affairs and Northern Development. Their assistance was indispensable and much appreciated. Other provincial and territorial departments and the Kativik Regional Government also made their views known and assisted in various ways.

The public meetings held in 15 northern communities between March and July, 1990 provided the core members of the study team with an extraordinary opportunity to listen and learn about - and occasionally to sample - both the traditional and "southern" foods consumed in air stage communities, and to have a better appreciation for the circumstances and concerns in each community. Although a day or two in each community provided only a basic understanding of a life very different from that in Ottawa, these visits were critical to the review. Consultations with airlines, cooperatives, other retail and wholesale businesses, and other organizations were equally informative. In many instances, these consultations were followed up with written submissions. Such submissions, as well as those received from communities or organizations with which the study team was not able to meet personally, are listed in Appendix 3.

The assistance of Canada Post Corporation is also much appreciated. Canada Post's area managers assisted in arranging the community consultations in the Baffin region, northern Quebec and northern Ontario. No study would have been possible without the information on volumes, costs and postage revenues which were provided to the study team. It should be noted, however, that such data were available at the regional level only for the 1988-1989 fiscal year. The significant changes which have occurred since then are not reflected in the data presented here, but their nature is indicated in the text.

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EXECUTIVE SUMMARY

Introduction

This report fulfills the commitment of the Minister of Indian Affairs and Northern Development that a review would be conducted concerning the implications of the declining annual subsidy provided to Canada Post to ship goods by air to isolated northern communities through its air stage system.

The review was precipitated by widespread protest and concerns from northern native organizations and elected representatives following an announcement by Canada Post in October 1989 of a proposed 30 percent increase in postal rates. Following consultations in December 1989, rate increases of about 25 percent were implemented on January 31, 1990.

Health and Welfare Canada also played an important role in conducting this review. Extensive consultations were held with many northern communities, the major wholesalers, retailers, air carriers, and native organizations.

The Air Stage System

The Post Office's air stage system grew in an ad hoc and arbitrary manner during the 1960s and 1970s and was inherited by Canada Post when it became a Crown Corporation in 1981. There has never been a clear policy framework established to enable Canada Post to properly and equitably administer the air stage system and the inherent subsidy.

System-wide, in 1989-1990 perishable food represented 41 percent of the total volume of goods shipped, non-perishable food 25 percent and other goods 34 percent. In some regions such as the Baffin, food, especially perishable food, is far more important.

Although all communities on the air stage network are eligible to receive dry goods at a subsidized rate, only those in the Baffin region of the Northwest Territories, northern Quebec and James Bay, northern Ontario and northern Saskatchewan are eligible to receive food.

The postal rate is approximately 65 cents per kilogram in northern Quebec and $2.10 per kilogram in the Baffin region. Transportation cost differentials cannot explain this difference, nor can it be justified on other grounds. Before the last postal rate increase, the air stage rate was competitive with the sealift rate in Quebec and merchants relied extensively on the air stage service for non-perishables.

In 1989-1990, the subsidy was worth approximately $1,000 per person in northern Quebec, $350 per person in the Baffin, $140 per person in northern Ontario and $70 per person in northern Saskatchewan. Food is by far the most important item in these regions. In some communities, the value of the subsidy exceeds $3,000 per person.

Important changes to the air stage network have occurred since the last postal rate increase in January 1990 and the commencement of this study.

The major northern retailers have significantly increased the volume of merchandise shipped by the sealift in the summer. This should result in reduced requirements for air shipment of non-perishable food and dry goods during this winter.

In the summer, the North West Company (formerly the Hudson's Bay Company) switched from the Air Stage Network to charter or regular air cargo for most communities in northern Ontario and the James Bay region of Quebec. These alternatives are not yet, and may never be, competitive with a subsidized postal rate in more remote regions.

First Air, a major air carrier into the Baffin, was by Makivik Corporation, the owner of Air Inuit which serves northern Quebec. This may affect the competitive environment in these regions, but may also result in improved efficiency.

Trade and Transportation in Air Stage Regions

The air stage network has generated a significant volume of business for wholesaling and distribution firms in southern staging points, for airlines (many native-owned), and for retailing businesses (many native-owned) in northern communities.

Retail trade in most air stage communities is dominated by the North West Company. Native cooperatives are the second large retail presence and an important source of competition. Both are large employers of native people.

Although air transportation service to air stage communities has improved continuously over the past three decades, many communities are still served by only one airline and, usually, by small propeller aircraft. Air cargo rates vary enormously, depending on airport facilities, operating conditions, the type of aircraft, and competition.

The summer sealift operation is the main alternative to air transportation and is almost always cheaper. Storage costs, space availability, and financing costs, however, have been a deterrent to greater use of the sealift, particularly for the cooperative stores.

Recent pressures on fuel costs may raise northern air transportation costs significantly.

Air Stage Communities

Most of the air stage communities currently receiving food are small, remote and native (most, in fact, are Inuit) and have a young, rapidly growing population. Employment opportunities are limited and per capita income levels are far below national averages.

Incomes, however, vary considerably within each community and between communities. Generally speaking, the lower income groups, almost all natives, have the least protection against rising food costs.

Both social assistance scales and the level of welfare dependency vary greatly from one region to another. On reserves in northern Ontario, Manitoba and Saskatchewan, over half of the population are on welfare - twice as many as in the Northwest Territories or northern Quebec.

Quebec does not adjust social assistance scales to reflect the higher cost of food in the north, whereas scales in the Northwest Territories are based on local food prices. Ontario, Manitoba and Saskatchewan have special northern allowances.

Health and Nutrition

Significantly large numbers of northern aboriginal people are suffering from poor health and malnutrition. Many of these problems are associated with poor socioeconomic conditions, including access to nutritious food at affordable prices.

The consumption of country food has been declining in many communities and particularly among young people because of a number of factors, including concern about contaminants in the food chain, southern influences, including those in the media, localized pressures on the resource base, and a lack of financial resources necessary to hunt and fish.

At least until the last postage increase, consumption of imported perishable food had been rising, particularly among younger people, in communities where it is more affordable.

Northern Food Prices

A Northern Food Basket was developed for this review in order to compare the cost of purchasing a nutritious food basket in different communities and assess the impact of the air stage subsidy reduction.

The subsidy has accomplished what it was intended to do, namely lower the cost of food and other commodities. Nevertheless, perishable food in the Baffin region costs approximately three times the level in Ottawa. In northern Quebec, perishable food costs almost twice as much as in Ottawa. The difference between the Baffin region and northern Quebec can be explained by the higher value of the subsidy (and lower postage rate) in Quebec.

Generally speaking, a family on social assistance or minimum wage in air stage communities, and without access to country food, could not afford the cost of a thrifty, nutritious food basket. The most serious concern is for those at highest nutritional risk: pregnant women, infants, and growing children.

Regional and community variations in food prices and social assistance scales place families on social assistance at greater nutritional risk in some communities than in others.

Impact of the Air Stage Subsidy Reduction

Although the impact varies widely from region to region, on average, each $1 million reduction in the subsidy will result in about an 8 percent increase in postal rates, unless the volume of shipments entering the air stage system is reduced or Canada Post's costs decline.

On average, a 10 percent increase in postal rates will result in about a 3 percent increase in retail food prices. This impact varies considerably from community to community, depending on the current value of the subsidy. Entirely eliminating the subsidy would double food prices in a community such as Salluit in northern Quebec, result in about a 30 percent increase in Pond Inlet in the Northwest Territories, and a 23 percent increase in Fort Severn in northern Ontario. These figures, however, are based on the assumption that only the price of perishables is affected, and that there is no negative impact on retail competition.

Without the subsidy, the price of perishable food in most communities in the Baffin region and northern Quebec would be much higher than the current price in regions such as the central Arctic which do not receive food mail service. The annual cost of a basic food basket for a family of four would be over $21,000 in some communities. A litre of milk could cost $10 and a loaf of bread $7. Increased food costs would reduce the availability of nutritious foods, and the ability of consumers to afford them.

Reduced consumption of imported nutritious perishable food, at a time when reduced access to country food and concern for its safety are limiting its use, would seriously jeopardize the nutritional status and health of northern residents. The impact would be greatest on infants, children and pregnant women.

Native-owned air carriers would suffer if the volume of shipments declined and this would likely show up in higher passenger fares and reduced frequency of service for business travellers, government personnel, tourists and the general public.

The indirect social and health costs to governments may outweigh the direct savings from the declining subsidy.

Considerations and Alternatives

There is no particular reason why the postal subsidy should be the sole responsibility of the federal government. It would be perfectly feasible for the provincial and territorial governments to contribute if they so wished.

The study team has concluded that, in the short term, there is no feasible and efficient alternative to the subsidized air stage service of Canada Post. The public interest could be better served if there were a concerted effort to rationalize and improve the administration of the current subsidy, even if it continues to decline.

Consideration should be given to establishing one commercial postal rate throughout the air stage network. Higher cost regions and communities would automatically receive a proportionately greater share of the subsidy. A uniform rate would redress the current implicit discrimination against the most northern, isolated communities where the need for subsidization is greatest.

The universal postal rate should be high enough to encourage maximum use of the sealift or winter roads and thereby ensure that available funds can be equitably applied to all truly remote communities.

A single rate would result in a significant decline in the rate for the Baffin region. However, in the absence of supplementary funding, a single rate would require an increase in the rate to northern Quebec, even if the service were restricted to perishable food.

In order to reduce inefficient use of the service for non-perishable goods, priority should be given to perishable food, for which there is no alternative to air shipment. Consideration should be given to eliminating entirely dry goods from the system. If dry goods were to remain eligible and possible within funding allowances, the postal rate should be established at a much higher level in order to encourage its use only in emergencies in the most remote communities.

Consideration should be given to expanding the food mail service during the months when surface transportation is impossible to any community in the country that lacks year-round or almost year-round surface transportation. However, in many communities, commercial air cargo or charter flights would be competitive with Canada Post. Communities in Labrador and the central Arctic would likely be the major beneficiaries of expanding the food mail network. Current staging points should not be eligible to receive subsidized food shipments.

Expanding the food mail service to other remote communities would not make sense if the subsidy were going to continue to decline by $1 million per year.

The list of goods restricted from the air stage system could be clarified and expanded to make more of the subsidy available for nutritious perishable food.

Given the policy vacuum within which Canada Post manages the air stage subsidy, a government department should assume responsibility for giving policy direction to Canada Post concerning the manner in which the subsidy is applied. Possible departments would include Transport Canada, Health and Welfare Canada and the Department of Indian Affairs and Northern Development.

If a department of government were to assume policy responsibility for the subsidy, it might be possible to develop a feasible alternative to the continued involvement of Canada Post during a period of, say, the next three years.

The impact of any changes in the funding, allocation, and administration of the subsidy on food prices, consumption, nutrition and health should be monitored by government to ensure that the subsidy is effective in achieving its objectives.

INTRODUCTION

On March 12, 1990 the Minister of Indian Affairs and Northern Development announced the terms of reference for a federal review of the implications of the declining annual subsidy provided for the shipment of goods to isolated communities using Canada Post's Northern Air Stage network. This report is the result of that review, the terms of reference for which are contained in Appendix 1.

Origin of This Study

In October 1989 Canada Post Corporation announced increases of about 30 percent in postal rates for the shipment of food and other commodities by air to remote northern communities, to come into effect on November 13, 1989. This announcement resulted in widespread protest and concerns from northern native organizations and elected representatives. Concerns were voiced in Parliament and views were reinforced in a meeting held in Ottawa on November 2, 1989 attended by politicians, representatives of native organizations, Canada Post officials, and observers from several federal departments.

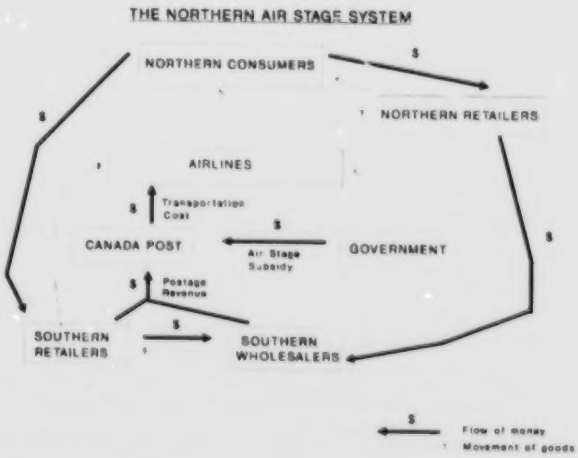
As a result of this meeting, Canada Post immediately announced a moratorium on the rate increase until January 31, 1990. A number of consultative meetings with commercial shippers, retailers, interested northerners, native organizations and elected officials followed in December. Officials of Canada Post Corporation and the Department of Indian Affairs and Northern Development attended these meetings.

Certain cost savings were identified during these consultations and, on January 19, 1990, Canada Post announced that the postal rate increases would be reduced to an average of about 25 percent. The rate increases went into effect on January 31, 1990. At the same time, it was announced that the Department of Indian Affairs and Northern Development, with the assistance of other federal departments, agencies, and Canada Post would conduct a review of the implications of the declining annual subsidy provided to Canada Post. Canada Post, in turn, agreed to withhold further increases to its air stage rates until January 31, 1991.

The Air Stage Subsidy

The federal subsidy to Canada Post's Air Stage System, which is described in detail in Chapter II, is graphically depicted in Figure 1. The system provides parcel service to communities without year-round surface transportation, most of which are in the north. All commercial shippers, i.e. those mailing more than five parcels or 20 kilograms per day, or more than 20 parcels or 80 kilograms per month, must sign an agreement with Canada Post to obtain this service. Canada Post, in turn, contracts with airlines to deliver the goods.

Figure 1.



Both consumers and northern retailers order goods from southern suppliers. The goods generally go directly from the suppliers to the air carriers, without handling by Canada Post. Suppliers pay postage to Canada Post. The postage paid, plus the northern air parcel subsidy provided to Canada Post by the government, is intended to cover Canada Post's costs. Native interests are important in all aspects of the distribution system, including wholesaling, transportation and retailing.

The current policy of the federal government is that the subsidy will decline by $1 million per year. It should be made clear to the reader that the terms of reference of the study **do not** include authority to make public recommendations concerning the amount of subsidy. The reader should also be aware that no department of the federal government is responsible for the subsidy to Canada Post, either in a policy

or financial sense. The subsidy, in its current status, is an annual appropriation of Parliament to the Minister responsible for Canada Post Corporation and it appears in the Main Estimates and Public Accounts as such.

Research Methods

An interdepartmental committee, chaired by the Department of Indian Affairs and Northern Development (DIAND), was formed to plan and conduct the review. The committee was composed mainly of representatives from Health and Welfare Canada (HWC), Agriculture Canada, Transport Canada, the National Transportation Agency of Canada, Treasury Board and Canada Post Corporation.

Most of the research was conducted by DIAND and HWC. The extensive community consultations were conducted by a core study team composed of two DIAND officials, a nutritional expert representing HWC, and a senior observer from Canada Post. DIAND officials also undertook extensive bilateral consultations with the major wholesalers, retailers, air carriers, and native organizations.

This report is based on those consultations, which occurred mainly in April, May and June of 1990, independent research of the core study team, as well as information and data obtained from Canada Post.

The community consultations were critical to understanding the nature of the problem. A map showing the communities visited is contained in Appendix 2. Typically, a visit included an open meeting with the band or town council and other interested members of the reserve or community. An explanation of the subsidy was provided by the study team, individuals sometimes made presentations to the study team (some of these very graphically), many questions were asked and answered as best they could be, and the study team used the opportunity to ask questions in return and, generally, to seek views on how the subsidy might be better managed. Translation from aboriginal languages was available where required. Many of the meetings were very well attended, lengthy and vocal. Others were not.

Members of the study team also met bilaterally, whenever possible, with local medical staff, social workers and teachers. In every community, the managers of the local retail operations were consulted. For the most part, this meant the native cooperative store and the North West Company store (formerly, the Bay), although in some instances there were independent retailers as well. In every store, the study team surveyed the prices of an extensive list of food and non-food items. It was this survey, discussed in more detail in Chapter V, that allowed the study team to determine the comparative cost of a thrifty, nutritious Northern Food Basket.

Finally, it should be noted that the study team received many written submissions from interested individuals, companies, organizations and communities. These submissions are listed in Appendix 3. All of them were given serious consideration in preparing this report.

CHAPTER I

THE AIR STAGE SYSTEM

Historical Background

A thorough history of the use of the airmail system to deliver parcels of food and other goods to remote communities has never been written. However, from archival records examined during the current subsidy review and from consultations with some of the parties involved since the early days of food mail service, it appears that the service was established first in northern Quebec in the late 1960s and expanded thereafter in an ad hoc fashion with no overall policy direction. A decision in 1969 to eliminate the "special rates" - as high as 80 cents per pound - for parcels sent to the Northwest Territories paved the way for growth of a perishable food mail service to the Baffin region. Service to northern Ontario is understood to have developed in parallel with that to northern Quebec. Service to Saskatchewan, on the other hand, does not appear to have begun until the mid-1980s, after the termination of the perishable food transportation subsidy provided by the provincial government.

As the extent of losses incurred in providing this service steadily mounted, requests from additional communities and businesses for food mail service were simply refused by the Post Office. Canada Post, established as a Crown Corporation in 1981, continued to provide service at a loss to regions then receiving food mail service. Except in Saskatchewan, Canada Post did not formally expand the food mail network. Parcels other than food, however, were accepted for delivery throughout the air stage network.

In 1986, the government decided that when Canada Post was expected to provide a service at less than cost for a public policy purpose, it should receive a subsidy explicitly for that purpose. Revenues or profits from other services would not be used to cross-subsidize money-losing services. Subsidies for literature for the blind, Parliamentary mail, and the air stage service were established, similar to that which had been provided since the late 1970s for publications mail. The air stage subsidy was set at $19 million for 1986/1987 and was scheduled to decline by $1 million per year thereafter. These reductions were anticipated in Canada Post's corporate plan released on July 30, 1987. Funds for the subsidy were appropriated by Parliament annually through the Minister responsible for Canada Post Corporation.

In the meantime, Canada Post had taken decisions on how to manage the subsidy. The Fourth Class Mail Regulations were amended, effective April 1, 1987, to require anyone wishing to mail more than five items or 20 kilograms per day, or more than 20 items or 80 kilograms per month, to or from one or more air stage offices, to enter into an agreement with the Corporation. The air transportation costs incurred by Canada Post in shipping goods pursuant to these agreements were partially offset by the subsidy provided. The agreements also required that mailers complete a mailing statement for each parcel, stating whether the goods were frozen food, other perishable food, non-perishable food or other merchandise. In most cases, Canada Post continued to refuse to send food to communities which had not received it in the past, and did not enter into agreements with new shippers - even those who wished to ship to communities already receiving food mail. There were, however, some inconsistencies in the implementation of the new Regulations, as described later.

With the rate changes effective on January 31, 1990, Canada Post entered into new agreements with its air stage customers and formalized some of the restrictions which had been applied previously on a more or less voluntary basis. The new agreements stipulated that food would be accepted only at certain entry points for delivery to specified destinations, and restrictions were placed on snack foods. Through a general understanding, only small quantities of soda pop and chips had been shipped in the past. Nevertheless, Canada Post did not consider that it had a mandate to restrict the shipment of these products and proposed in October 1989 to remove any restriction on the kinds of goods which it would ship to air stage communities receiving food mail, except for goods prohibited from the postal system generally. During the consultations undertaken in December 1989, widespread concern was expressed about the substantial rate increase which would be necessary for all goods if large volumes of pop and chips were accepted with no increase in the subsidy. In response to this concern, and with the support of the government, Canada Post formalized the previous restrictions against pop and chips and also formally eliminated tobacco products and alcoholic beverages from the air stage system, effective January 31, 1990.

The Air Stage Network

The current air stage network is depicted on the following map. Four regions are eligible for food mail service: the Baffin region in the Northwest Territories served out of Val d'Or; eastern James Bay and northern Quebec served from Val d'Or and La Grande; northern Ontario served from Kapuskasing, Timmins, Nakina, Pickle Lake and Red Lake; and northern Saskatchewan served from La Ronge. Montreal is also used as staging point for the Baffin region and Kuujjuaq, as is Moosonee for four communities in northern Ontario, but only for goods other than food. Communities lacking road or rail access in the rest of the Northwest Territories, Labrador and northern Manitoba, and coastal communities in British Columbia make up most of the remaining network. Fort Ware (in the northern interior of British Columbia), Fox Lake and Fort Chipewyan (in northern Alberta), Old Crow (Yukon), Lac Seul (northern Ontario), Pelee Island (southern Ontario), Isle aux Grues and Iles-de-la-Madeleine (Quebec), Pictou Island (Nova Scotia), and Harbour Deep (Newfoundland) are also air stage communities which are not eligible for food mail service. They may, however, receive food parcels mailed in the small quantities permitted by Canada Post without entering into agreements for commercial air stage service.

Current and Historical Postage Rates

Since the government adopted a new strategic direction for Canada Post Corporation in 1986, air stage parcel rates for a 10-kilogram parcel of food have increased by 20 percent for service to the Baffin region, by 64 percent for service to northern Quebec from Val d'Or, and by 37 percent for service within northern Ontario. Rates since 1970 are shown in Figure 2. In absolute terms the difference between Baffin and Quebec rates has increased from $1.36 per kilogram in 1986 to $1.45 per kilogram at present. The Baffin rate for a 10-kilogram parcel is now 3.3 times the rate to northern Quebec, exactly the same ratio as in 1970. However, the difference widens for larger parcels, so that the rate for a 30-kilogram parcel sent to the Baffin region is four times the rate to northern Quebec. The discrimination against larger parcels is peculiar to the Northwest Territories rate structure (see Figure 3). Based on written evidence from the time, it appears that the rate structure adopted in 1970, when the "special rates" for each community in the Northwest Territories were abolished, represented an attempt to discourage commercial use of air mail service to the Northwest Territories

Figure 2

Air Stage Parcel Rates for Food
1970 - 1990

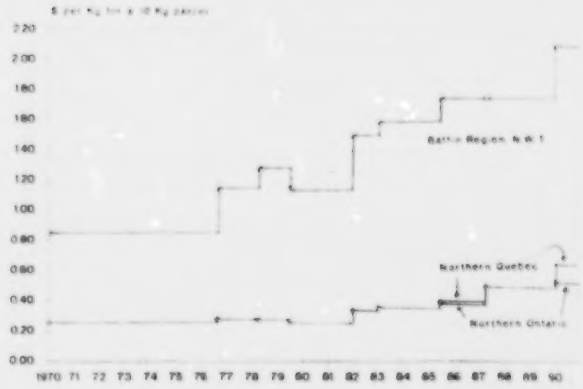
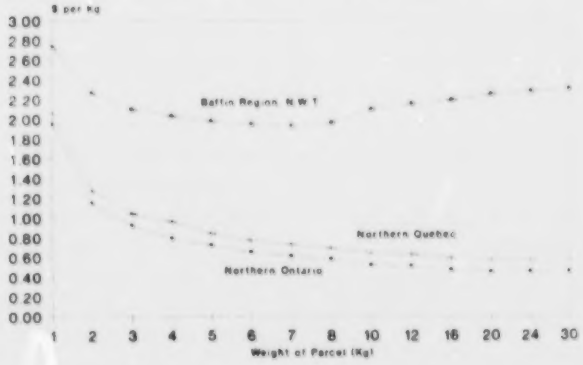
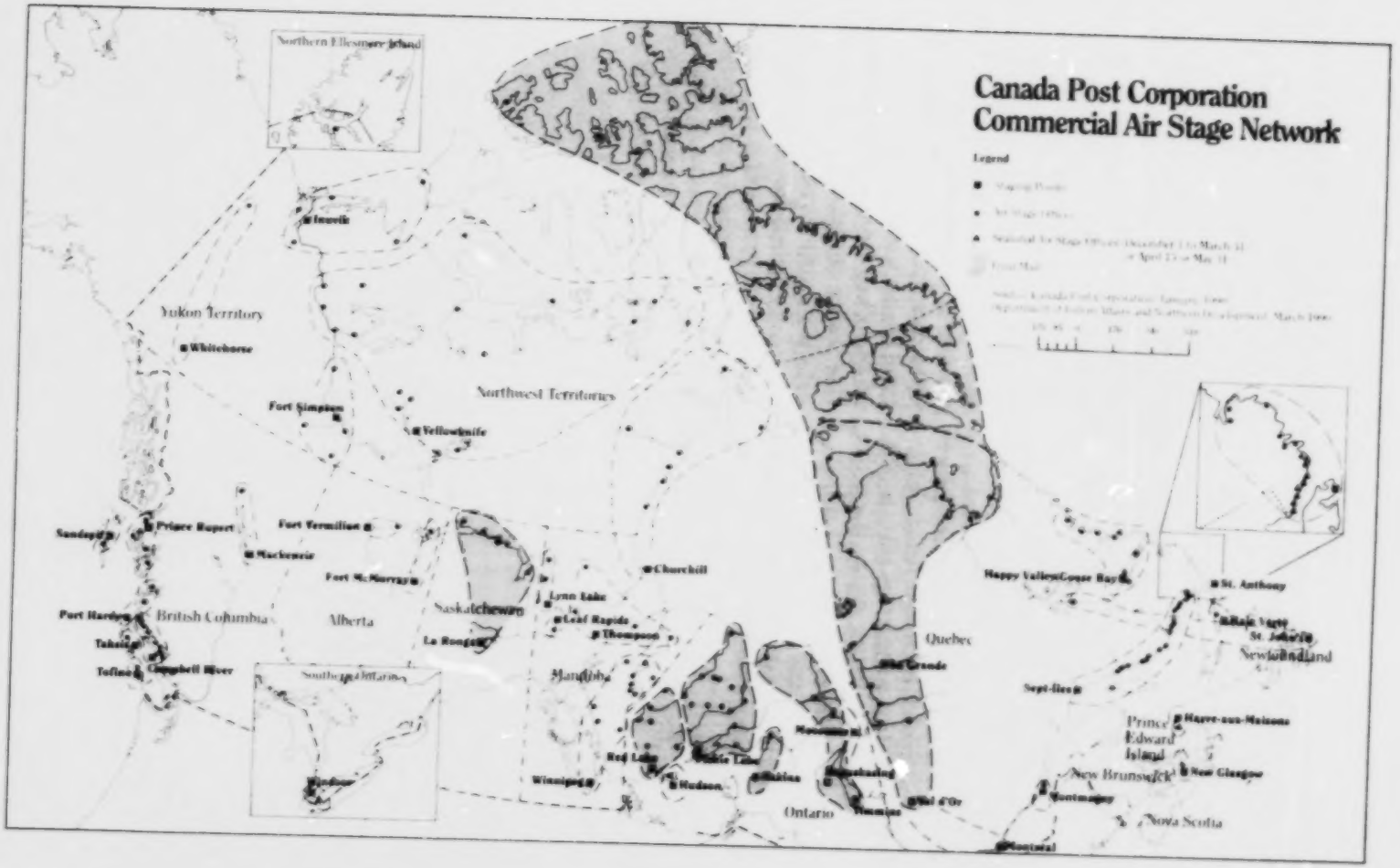


Figure 3

Air Stage Parcel Rates for Food
Effective January 31, 1990



Effective April 1, 1987, a distinction was introduced between the commercial air stage rates and those paid by the general public mailing small numbers of parcels. The latter rates are somewhat lower than those shown in Figures 2 and 3, and in many instances do not fully cover Canada Post's costs. Any loss incurred, however, is not covered by the air stage subsidy which applies exclusively to commercial customers operating under agreements with Canada Post. During the consultations undertaken for this review, some parties felt that Canada Post should charge all members of the public the same rate.

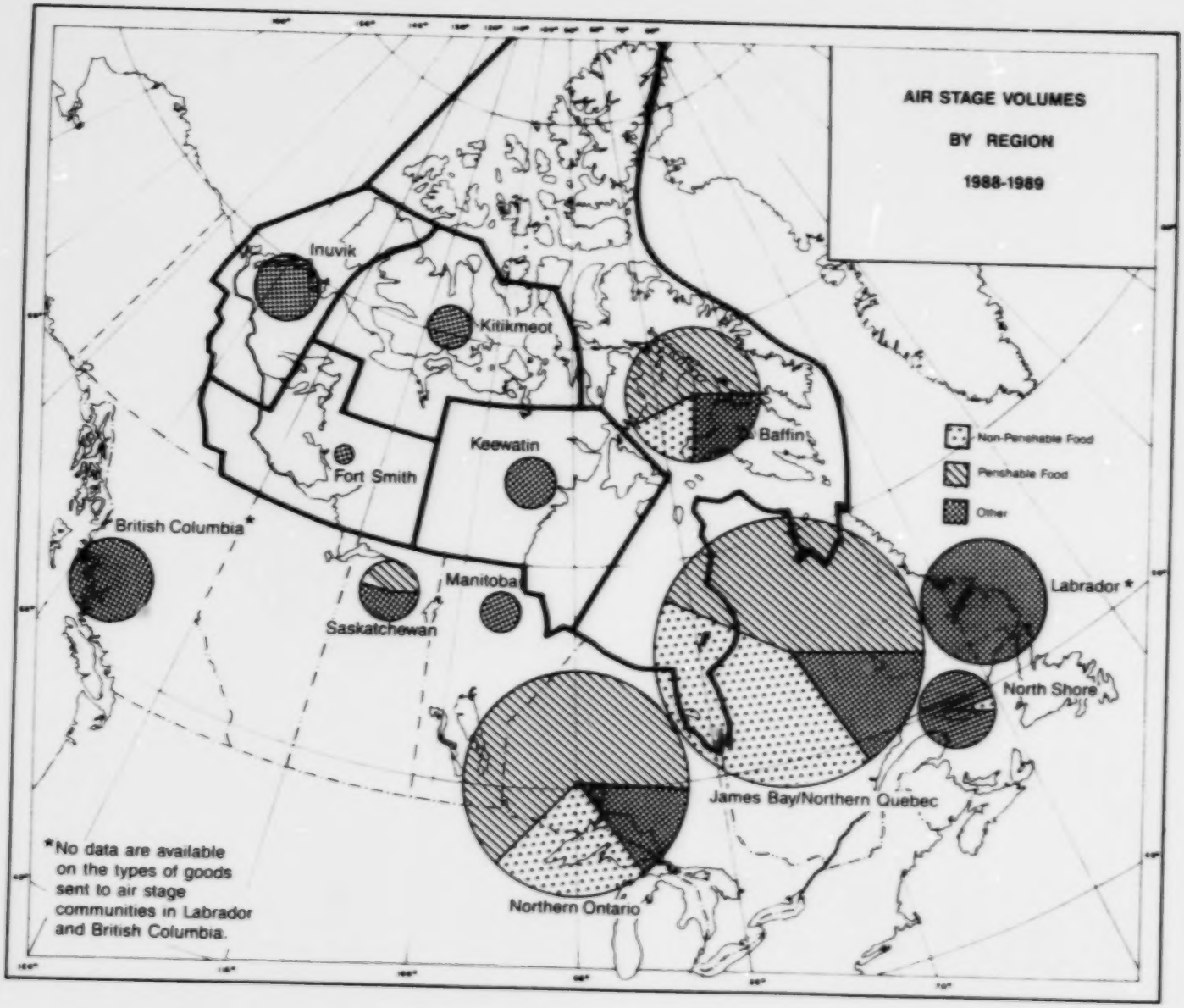

Canada Post Corporation
Commercial Air Stage Network
Legend
Northern Ellesmere Island
Yukon Territory
Whitehorse
Inuvik
Northwest Territories
Fort Simpson
Yellowknife
Sandspit
Prince Rupert
Fort Vermilion
Mackenzie
Fort McMurray
Port Hardy
British Columbia
Alberta
Saskatchewan
La Ronge
Tofino
Campbell River
Southern Ontario
Windsor
Churchill
Lynn Lake
Leaf Rapids
Thompson
Manitoba
Red Lake
Winnipeg
Hudson
Wabush
Ontario
Timmins
Val d'Or
Quebec
Baie Comeau
Sept-Iles
Montreal
Happy Valley/Goose Bay
St. Anthony
Baie Verte
St. John's
Newfoundland
Prince Edward Island
Havre-aux-Maisons
New Brunswick
New Glasgow
Moncton
Nova Scotia

Volumes

In 1988/89, Canada Post shipped approximately 15,700 tonnes of goods to air stage communities. Northern Quebec, northern Ontario and the Baffin region, which receive food mail, accounted for 39, 29 and 9 percent of the volume respectively. Although Canada Post also accepts food for delivery to northern Saskatchewan, goods sent there accounted for only 2 percent of the total volume. Labrador, the remainder of the Northwest Territories and the north shore of the Gulf of St. Lawrence in Quebec each accounted for a larger share of the volume than northern Saskatchewan.

There is substantial regional variation in the volume and type of food shipped by Canada Post (see the following map and Table 1). On a per capita basis, northern Quebec received three times as much perishable food as the Baffin region, 10 times as much non-perishable food, and about two and a half times the volume of other goods in 1988/89. Canada Post's figures suggest that on a per capita basis, northern Ontario communities received almost as much perishable food as northern Quebec, but the recorded volumes of non-perishable food and other goods were closer to those in the Baffin region.

The much lower postage rate to Quebec compared with the Baffin region is undoubtedly the major factor responsible for the greater usage of air stage service in Quebec. Until the rate increase of last January, the postage rate to northern Quebec was similar to the sealift rate. Consequently, merchants in northern Quebec came to rely extensively on air stage service even for non-perishable food traditionally sent by sealift. However, the latest postal increase has restored some incentive towards the use of sealift service. From discussions with major suppliers and retailers, it is expected that the volume of goods, other than perishable food, sent to northern Quebec will have declined substantially by the summer of 1990. A modest decline is also expected in the shipment of non-perishable food to the Baffin region. Furthermore, most communities in northern Ontario and the James Bay region of Quebec which had been receiving large volumes of food and other goods through the mail in 1988-1989 now rely more on commercial air cargo service, since air cargo or charter rates to many of these communities are less than the postage rate. The North West Company has stopped using Canada Post to supply its Northern stores in the James Bay region of Quebec and all but two or three communities in northern Ontario. The service is still used, however, to supply other businesses and for mail orders sent directly to households in northern Ontario.

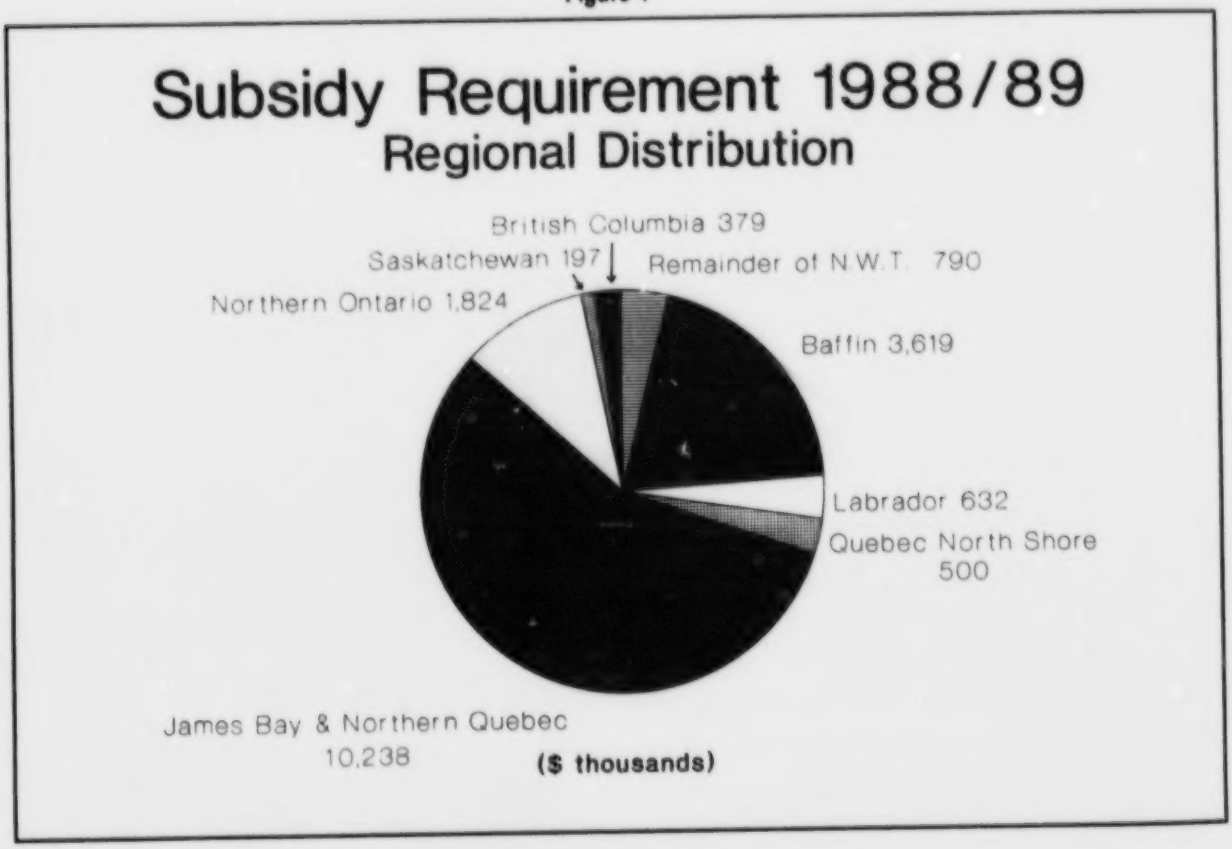

AIR STAGE VOLUMES
BY REGION
1988-1989
Non-Perishable Food
Perishable Food
Other
Inuvik
Kitikmeot
Keewatin
Baffin
Fort Smith
British Columbia*
Manitoba
Saskatchewan
Labrador *
North Shore
James Bay/Northern Quebec
Northern Ontario
*No data are available on the types of goods sent to air stage communities in Labrador and British Columbia.

Costs and Revenues

Canada Post receives revenue from two sources to cover its cost of air transportation for commercial parcel service to air stage communities: the postage paid by commercial shippers, and the air stage subsidy provided by the federal government. In 1988/89 fiscal year, the $17 million subsidy greatly exceeded the $11 million which Canada Post received as postage revenue for this service. Less than 40 percent of the cost of the service was offset by postage revenues, while over 60 percent was financed by the postal subsidy.

The regional distribution of the subsidy requirement in 1988/89 is shown in Figure 4 and Table 2. The distribution reflects both the use of the service in different regions, and the extent to which postage revenue per kilogram fell short of meeting Canada Post's costs in serving each region. Postage rates have been based in part on the cost of providing service, but are not explained entirely by cost differences or distance. The postage rate to the Baffin covered 41 percent of Canada Post's air transportation costs, compared with only 23 percent in northern Quebec. Northern Quebec may have been favoured by virtue of being part of the western Quebec postal code region and, before the advent of postal codes when rates were based on provincial boundaries, by being in a province.

Figure 4



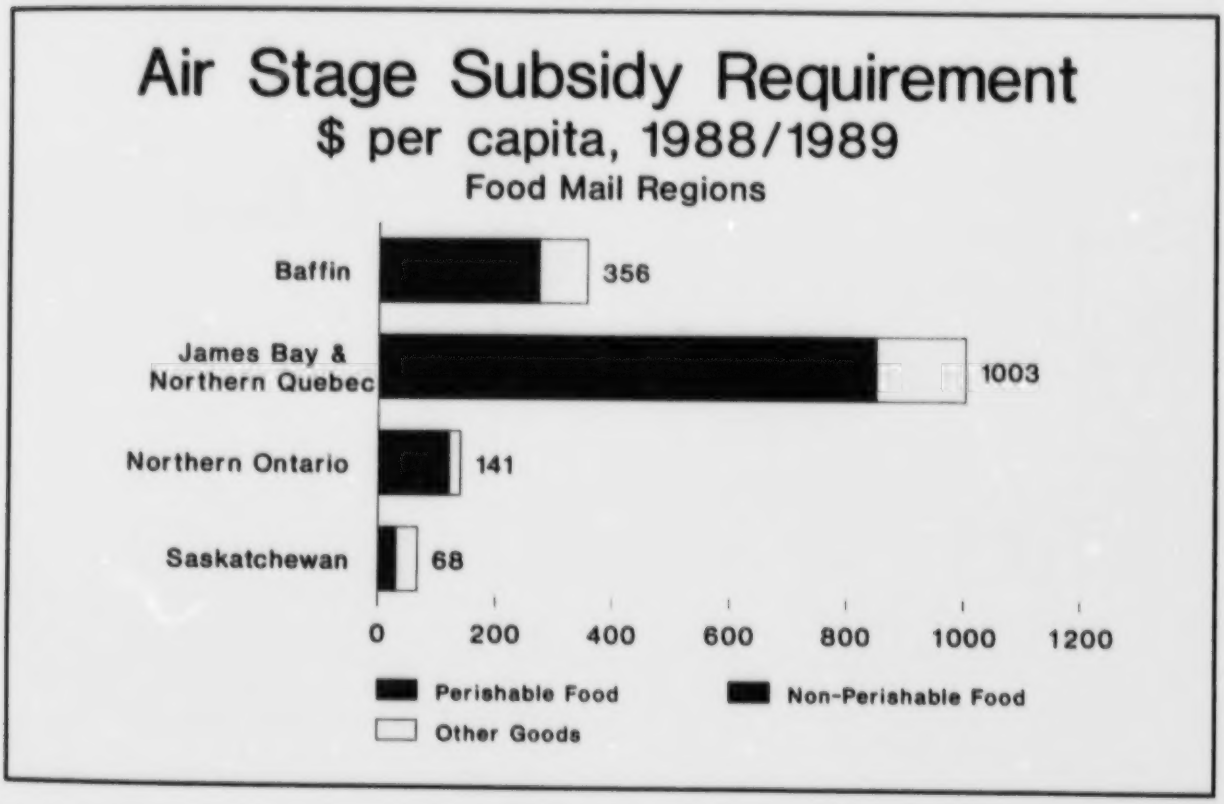
Because of the higher average costs of providing service to the Baffin region, the subsidy requirement per kilogram was higher in the Baffin region than in northern Quebec. Northern Quebec, which makes much greater use of air stage service than the Baffin region, received about 56 percent of the subsidy. The subsidy to residents of northern Quebec amounted to about $1,000 per capita, compared with about $350 per capita in the Baffin region. Northern Ontario also accounted for about 10 percent of the subsidy, but because of the larger population, the per capita subsidy in northern Ontario was only $141. Together, these three regions, all of which receive food mail, accounted for 86 percent of the subsidy

requirement. Since food accounted for about 84 percent of the goods shipped to those three regions, about 72 percent of the entire air stage subsidy was used for shipping food to the Baffin region, northern Quebec and northern Ontario.

Figure 5 shows differences in the subsidy requirement in 1988/89 on a per capita basis in the four regions which receive food mail service. Most of the difference between the total subsidy requirement in the Baffin region and northern Quebec was attributable to food, particularly non-perishable food. Except in Saskatchewan, most of the subsidy was used for shipping food.

In considering the value of the subsidy in each region, however, it is critical to understand that the value of the subsidy on a per capita basis varies enormously from one community to another within the same region, depending upon the volume of goods shipped and the cost of air transportation to each destination. There are communities in northern Quebec, for example, where the subsidy is over $3,000 per person. Similarly, in some Baffin communities, the subsidy per capita is several times the regional average of $356. In some communities, on the other hand, the subsidy requirement is essentially zero.

Figure 5



Problems

During the community consultations undertaken for this review, people often expressed their overall satisfaction with the parcel service which Canada Post provides to air stage communities and noted that service has improved in recent years. Both businesses and residents were genuinely grateful that Canada Post has been providing food mail service, which was often described as a lifeline to the communities. A number of problems with the service, however, were brought to the attention of the study team.

Spoilage and Loss

Given the difficult climatic circumstances under which the service is provided and the inadequate airport facilities and equipment which are available in some communities, it should not be surprising that there are instances where food arrives in a damaged or spoiled condition. Parcels also simply disappear. Sometimes food which requires refrigeration is left on the runway or in inappropriate storage facilities until it spoils. Fresh produce and dairy products sometimes are frozen and arrive in an unusable condition.

Although no-one expects perfection, the amount of loss and spoilage is larger than many people feel it should be. The lack of accountability for loss and damage is as much a source of frustration as the financial loss which is involved. Southern distributors have agreements with Canada Post which has a contract with the airlines to deliver goods to northern communities. Normally, at least in food mail regions, the business to which the goods are addressed takes them directly from the aircraft to the place of business with no further involvement by Canada Post. No bill of lading accompanies the goods from point of mailing to point of delivery. Northern businesses pay their southern suppliers for the cost of both the goods and postage and are expected to pay even if the food is spoiled or damaged when it arrives. When this happens, no-one is accountable for the loss. The northern consumer and northern businesses pay for this loss. The airline is paid, even if the goods were spoiled before they were put on the aircraft. Canada Post takes no financial loss because the subsidy is intended to cover their loss entirely, even if part of it is wasted in moving goods which are of no use to anyone.

Administrative Accountability

Lack of appropriate accountability for the subsidy itself is also a problem. Unlike the publications mail subsidy, for which the Minister of Communications is responsible, responsibility for the air stage subsidy lies solely with the Minister responsible for Canada Post Corporation. Canada Post does not feel it is in a position to make the kinds of decisions required to administer the subsidy in a manner which best promotes the social and economic policy objectives which the subsidy could help to achieve. Yet no minister other than the Minister responsible for Canada Post Corporation has been given the formal responsibility for advising Canada Post on the use of the subsidy. The allocation of the subsidy, both in terms of the regions and communities which benefit from it and the types of goods to which it is applied, has evolved essentially without policy direction.

Inconsistencies

Inconsistencies in the agreements between Canada Post and its commercial air stage customers, and in their application, pose some significant problems requiring both policy direction from government and more rigorous monitoring and enforcement by Canada Post. Apart from a desire to reduce volumes and losses, there is no apparent reason why food should be accepted for shipment to certain communities and regions and be refused for shipment to other communities and regions facing similar needs and circumstances.

Secondly, it is not clear that the restriction of food to certain southern entry points is in the best interests of northerners. The air stage subsidy covers Canada Post's losses only on the air transportation component of this service. Parcels other than food can be mailed anywhere in Canada for delivery to air stage communities. If a parcel is not mailed in the staging point from which air stage service commences, the postage rate is supposedly high enough for Canada Post to recover its surface transportation cost in moving the parcel to the appropriate staging point. By restricting food to certain entry points, northern businesses are forced to buy from suppliers located in or operating from those entry points. Their purchase prices may therefore be higher than they would be if competition among southern suppliers were more open. Although Canada Post may have intended to reduce its air stage volumes and losses by imposing these restrictions, it is not clear that it has had any such effect.

Finally, the interpretation and enforcement of some of the clauses in the regulations and in the agreements between Canada Post and its commercial air stage customers have also posed problems. Some northern businesses had not been informed that the exclusion of "chips" from air stage service also applied to "any potato chips, corn or other cereal chips, cheese flavoured snack food, pretzel or similar snack food." Canada Post's concern was with low-density snack foods which the Corporation feared would result in their being charged by volume rather than weight, if such products were shipped in large quantities. It was not Canada Post's intention to restrict candies and confectionery as "similar snack foods," but the clause has been interpreted by some to include not only candies and confectionery but even cookies. It is understood that infant formula has been accepted for shipment in Labrador because, in the judgment of the Canada Post official making the decision, formula is medicine rather than food. During the period when Canada Post would not enter into agreements with any new shippers, some businesses were allowed to operate without such agreements and to use the lower general public rates rather than the commercial air stage rates. Until recently, at least one major shipper was allowed to mail without signing an agreement and without completing mailing statements.

CHAPTER II

TRADE AND TRANSPORTATION IN AIR STAGE REGIONS

The wholesale and retail trade establishments serving the communities using Canada Post's air stage service and the transportation networks which supply these regions are different from those found in the more accessible parts of Canada. Some understanding of those systems is necessary to appreciate the impact of reductions in the air stage subsidy. Some relevant facts about the trade and transportation systems are presented in the following discussion.

Wholesale and Retail Trade

Retail trade in most air stage communities is dominated by the North West Company Inc., the new corporate name for Northern Stores Inc. which purchased the 178 stores comprising the Northern Stores Division of the Hudson's Bay Company in 1987. The company now uses Northern as its retail store name. A Northern store is found in 80 of the air stage communities, 39 of which are eligible for food mail service. The company had sales of $425 million in 1988, but the company's sales in air stage communities is not known.

Cooperatives are the second large retail presence in air stage communities. The first cooperative in northern Canada was formed in 1959 in George River (now called Kangiqsualujjuaq), one of the air stage communities in the Ungava region of northern Quebec. Cooperative retail stores are found in about 56 air stage communities, including 31 communities which receive food mail. Most of the latter are in the Baffin region and northern Quebec. In 1989, the cooperatives in the Northwest Territories had total sales of $45 million, most of which represents retail sales to residents of air stage communities. All of the cooperatives in the Northwest Territories and most of those in northern Quebec are affiliated with Arctic Co-operatives Limited and La Fédération des Coopératives du Nouveau-Québec respectively. Of the few cooperatives in northern Ontario, only the Band cooperatives at Big Trout Lake and Fort Hope belong to an umbrella organization, Federated Cooperatives Limited. This organization also has one member cooperative in Wollaston Lake, in northern Saskatchewan.

Labrador is unique among the air stage regions in that the provincial government operates stores in five native communities along the north Labrador Coast. Labrador has only one cooperative store, in Goose Bay.

None of the major regional or national grocery chains operate in air stage communities. However, independent food stores are found in some communities, such as Pangnirtung, Kuujjuarapik and Kuujjuaq.

Although many air stage communities now have some degree of retail competition, many have only a single store selling food and other goods. Orders sent directly to consumers from outside suppliers, whether by parcel post, air cargo or sealift, provide the only competition in such instances. Some employers provide their staff with cargo allowances which enable them to circumvent local merchants or to obtain goods not available locally.

Retail grocery stores in air stage communities are supplied both by true food wholesalers, which purchase directly from the food processing industry and suppliers of unprocessed agricultural products, and by "distributors" who in turn have purchased from major wholesale firms. The distributors are generally based in the staging points where Canada Post accepts food. The cooperative federations also purchase some products directly from wholesale firms, for shipment to their member cooperatives.

Air Transportation

Air transportation service to air stage communities has expanded continuously since a network of airports has been built by Transport Canada and provincial governments. Airport infrastructure, however, still differs enormously from one community to another. Some places such as Happy Valley/ Goose Bay and Iqaluit can accommodate virtually any aircraft. At the other extreme, there are still a few communities without runways where planes land on floats or skis on adjacent water. Goods are flown on jets or large propeller aircraft to the major centres, where they must then be transferred to smaller aircraft for shipment to most of the air stage communities. Winter darkness and cold add further to the cost of providing air cargo service to these small and remote communities.

Since partial deregulation of air transportation services in the north in 1986, some regions, such as northern Ontario, have seen increased competition. Many air stage communities,

however, particularly in the Northwest Territories and northern Quebec, are still served by only one airline. Air Inuit is the only carrier serving the Inuit communities in northern Quebec, excluding the regional centres of Kuujjuaq and Kuujjuarapik. The Baffin region is served by both First Air and Canadian Airlines, but each has a monopoly in most of the communities which it serves. The same is true of the Keewatin and Kitikmeot regions, where Canadian, NWT Air, First Air and Calm Air operate, but most communities are served by only one of these air carriers. In these instances, both Canada Post and other businesses wishing to use air cargo service must negotiate with only one carrier.

Current air cargo rates to selected communities are shown in Table 3. The rates shown are for food, which are sometimes higher, sometimes lower, and sometimes the same as general commodity rates. In most communities, the current air cargo rates are much higher than the postage rate. Consequently, most goods of the type and size accepted by Canada Post are sent to most air stage communities by mail, rather than air cargo.

Air cargo rates vary enormously, from as low as 50 cents to over $7.00 per kilogram. Distance is partly responsible for these differences, but airport facilities, operating conditions, the type of aircraft used, and competition will also influence rates. When expressed on a tonne-kilometre basis, rates range from under $1.00 to almost $8.00.

Surface Transportation

Most air stage communities have some means of seasonal surface transportation, as summarized in Table 4. However, there are about 20 air stage communities which are totally dependent on air transportation. Furthermore, the surface transportation available may consist of as little as one sealift or barge per year or a few weeks when winter roads are passable. On the other hand, marine service to Labrador is available from July to November, and the air stage communities on the British Columbia coast have year-round access to navigable water.

Where surface transportation is available, the rate is considerably less than Canada Post's air stage rate. The difference is especially great in the Northwest Territories and Labrador. Sealift or barge rates to communities in the Baffin, Keewatin and Kitikmeot regions of the Northwest Territories are generally between 40 and 60 cents per kilogram. Marine Atlantic service from Lewisporte or St. John's to Labrador costs between 3 and 6 cents per kilogram. Relais Nordik Inc. provides service from Rimouski or Sept-Iles to communities along the North Shore of the Gulf of St. Lawrence between April and January for between 9 and 30 cents per kilogram, depending on the type of goods and distance. Rates from Moosonee to communities as far as Fort Severn, Sanikiluaq and Kuujjuarapik are about 31 cents per kilogram for large volumes. However, in northern Quebec, the sealift rate of about 50 cents per kilogram is similar to the air stage postal rate before the last increase. Consequently, in recent years, little use was made of the sealift to northern Quebec for non-perishable goods of the size and type which Canada Post will accept. (Canada Post does not accept parcels weighing over 30 kilograms or containing dangerous goods.) The North West Company is in a different situation from the cooperatives and independent stores in this respect. It has its own supply ship and the storage capacity required to use marine service to supply its Northern stores. Even the Northern stores, however, had been making less use of marine service and greater use of Canada Post in northern Quebec in recent years.

In some regions, frozen food and hardy fruits and vegetables can be brought in on the available modes of surface transportation, if communities have appropriate storage facilities. In other cases, the equipment used does not accommodate frozen or other perishable food. For the most part, therefore, air stage communities must rely on air transportation for fresh or frozen meat, fruit, vegetables, dairy and bakery products, and other perishable items, whether or not Canada Post is used as a financial intermediary between the distributors and the air carriers.

Storage

When surface transportation is used to bring in a supply of goods to last through the season when air transportation is the only mode available, storage of various kinds is required. If the goods arrive in summer by ship or barge, freezer capacity is required for frozen food. Heated warehouse space is required for canned goods. Some non-perishable food items such as flour, sugar and pasta, and most types of household supplies (paper products, soap, cleaners, detergent, etc.) require no temperature control, but some kind of protection from the elements is necessary.

Storage space is not generally available for lease or rent in air stage communities. The businesses requiring it must build, operate and maintain it themselves. Financing costs for the

goods themselves and for their transportation, plus insurance (if available) must be paid from the time the goods are purchased until they are sold. These additional costs, over and above that of transportation and any temporary storage required en route, are ultimately borne by the consumer. No accurate figures are available on the cost of storage on a per kilogram basis for food and household items requiring various types of storage. However, the costs are not insignificant and must be taken into account in any consideration of the effect of the phasing out of the air stage subsidy to the extent that this results in greater use of seasonal surface transportation.

Future Developments

Changes in both the merchandising and transportation networks serving air stage communities are likely to occur over the next 15 years. Agreement has been reached with the Quebec Cree to extend the road network to Eastmain and Wemindji on James Bay by 1993. If the Great Whale hydroelectric development proceeds, the road to La Grande will probably be extended to or near Kuujjuarapik, which would permit the staging point for food to be moved north and some reduction in air transportation costs in northern Quebec. The airstrip at Povungnituk will be completed in 1992. A road to Happy Valley/Goose Bay is slowly being constructed from Labrador City. Other airports may be constructed or upgraded; and there will be some extension to the year-round and winter road network in other provinces and the Northwest Territories. However, the regions which account for most of Canada Post's current subsidy requirement have no prospect for either year-round surface transportation or an air transportation service which is substantially more efficient or competitive than it is today. Ownership of airlines, however, will inevitably change, though perhaps not as extensively and fundamentally as it has in the past 15 years when the service in many regions has come under native ownership.

The wholesale and retail network may also change. As in the airline industry, however, the scope for increased competition at the retail level is extremely limited in air stage communities. The geographical organization of the wholesale and distributing firms may also change. Competition could increase at that level, and more such firms may come under native ownership.

The trade and transportation systems by which food is supplied to residents of air stage communities will be affected by both the level and allocation of the air stage subsidy or any alternative form of transportation subsidy. These impacts, however, cannot be understood without an appreciation of the current economic circumstances and food prices in these communities and how these would change with the removal of the subsidy as described in the following sections of the report.

CHAPTER III

AIR STAGE COMMUNITIES

In order to appreciate the impact of the subsidy decline on air stage communities, one must understand the demographic, economic and social circumstances prevailing in them. The 189 communities designated as air stage offices differ greatly in many respects. Pelee Island has little in common with Grise Fiord. Even communities within the same region can be completely different - an important fact reinforced by the community consultations undertaken for this study. Nevertheless, this section describes some of the essential characteristics of air stage communities in each of the regions concerned. The reader is advised, however, not to assume that these characteristics apply to each community in the region.

Population

Table 5 shows the population of air stage communities by region. Because many of the reserve communities, particularly in northern Ontario, were incompletely enumerated in the 1986 census, comparable data cannot be presented for all regions. Certain trends and characteristics, however, are apparent. First, all are small communities, the average size being just under 600 people. The largest, Happy Valley/ Goose Bay, has over 7,000 residents. Although it receives some goods as a final air stage destination, it also functions as a staging point for goods shipped elsewhere in Labrador. Iqaluit, with a population of about 3,000, and Island Lake, Manitoba with a 1986 population of 1,873, are the second and third largest. Altogether, only 15 air stage communities have over 1,000 residents.

Secondly, almost all of the population of most air stage regions is of native origin, whether Inuit, Indian or Métis (Table 6). Except in Nanisivik and Norman Wells, most residents of the air stage communities in the Northwest Territories are native. Although no distinction is made among the various native groups in Table 6, it may be noted that the population of the two regions receiving most of the subsidy, i.e. Baffin and northern Quebec, is largely Inuit. All 50 Inuit communities in Canada are air stage communities, although only 28 of them are eligible to receive food mail. All of the air stage communities in northern Ontario and Manitoba, and all except Uranium City in Saskatchewan, are Indian reserves or settlements. Four Quebec Cree communities are included, plus the mixed Inuit and Cree community of Kuujjuarapik/ Whapmagoostui. Labrador has five air stage communities which are predominantly Inuit, one which is predominantly Indian, and 19 which are largely non-native. Labrador and the north shore of the Gulf of St. Lawrence in Quebec are the only air stage regions where native people are a minority, accounting for 31 and 17 percent of the corresponding regional populations.

Finally, air stage communities have a very young population. Thirty-five percent of their population in 1986 was under 15 years of age, compared with 22 percent of the Canadian population. Population growth has been rapid - not only from natural increase among the native population but also, at least in some regions, from net migration of non-natives. Because of their young age structure and high birth rates, the population of air stage communities will continue to increase rapidly for the foreseeable future. For example, with no net migration and no change in fertility or mortality, the Inuit population of the Baffin region will increase from 8,000 in 1986, when the air stage subsidy began, to over 14,000 in 2006, by which time the subsidy will have been entirely phased out under the current schedule. Even without any further change in diets, therefore, the potential need for perishable food in air stage communities will increase dramatically as the subsidy declines.

Economic Conditions

Although economic circumstances in air stage communities vary from one to another, most of them provide few economic opportunities for their present and future populations. Governments, whether federal, provincial, territorial, local, regional, or native governments or government commissions, boards and enterprises, provide almost the only source of income in most of these communities. The few private enterprises typically consist of stores and other service industries which recirculate the money brought into the community by government. Commercial fishing, trapping, guiding, and other forms of tourism in some communities also bring in cash from outside. Most, though not all, of the communities have restaurants, hotels, or other establishments providing food and accommodation to visitors, many of whom are persons travelling on government or private business rather than tourists. Transportation industries, particularly

airlines, generally employ at least a few people. Construction is normally carried out by the private sector and provides seasonal employment. In exceptional cases, some form of renewable resource processing industry is found. Agriculture is not generally possible. Mining and oil and gas provide the economic base in Nanisivik and Norman Wells respectively, and oil and gas exploration provides some seasonal employment in some of the communities in the western Arctic.

Employment

Year-round, full-time employment is the exception in most air stage communities, particularly for the majority of the population who are native people. When the last census was taken in June 1986, only about 35 percent of the native population aged 15 years and over in most air stage communities in northern Quebec and the Northwest Territories were working, compared with 60 percent of the Canadian population aged 15 and over (see Table 7). The employment rate in Manitoba and Saskatchewan was generally under 30 percent. No data are available for most of the air stage communities in northern Ontario, but the situation was probably similar to that in Manitoba.

The non-native population in air stage communities tends to be fully employed, since they are generally there for a few years at most to take advantage of the job opportunities which cannot be or are not filled by the more permanent residents. Labrador, however, is exceptional in this respect, since unemployment is a problem there even for the non-native population just as it is on the island of Newfoundland. In most Labrador communities, between 20 and 30 percent of the adult native population were employed. Churchill Falls and Happy Valley/Goose Bay were the only air stage communities in Labrador where the employment/population ratio for the population as a whole exceeded the regional average of 44 percent. Figures under 20 percent were recorded in the mainly non-native communities of Port Hope Simpson, Red Bay and St. Lewis. Employment/population ratios in the Quebec communities on the north shore of the Gulf of St. Lawrence were also low, even though most are non-native. In that region, only 30 percent of the population aged 15 and over were employed, and among native people this ratio, at 14 percent, was the lowest of all the regions presented in Table 7.

Income

Air stage communities include many of the lowest and a few of the highest income communities in Canada. Based on the 1986 census, the income received in 1985 was almost $20,000 per capita in Nanisivik and Norman Wells. In the vast majority of air stage communities, however, income per capita was less than $8,000. Native income per capita was generally about $4,000 in the Inuit communities in northern Quebec, though closer to $6,000 in Kuujjuarapik and Kuujjuaq (larger regional centres), and in the Quebec Cree communities. Native income in most Baffin communities was also about $4,000 per capita, and similar in other air stage communities in the Northwest Territories, though $1,000 to $2,000 higher in the larger administrative centres and in the Inuvik region where oil and gas exploration was still very active in 1985.

At the other extreme were the reserves in Manitoba where native income per capita averaged only $3,400. Native income in the three air stage communities in Saskatchewan for which income data are available was about $4,000 per capita. Few of the reserves in northern Ontario were enumerated in the 1986 census, but most of those which were also had native incomes of about $3,000 per capita. Income per capita in air stage communities in Labrador was about $8,400 ($5,600 for natives), but these figures are heavily influenced by Happy Valley/Goose Bay. Elsewhere in Labrador, native income tended to be about $4,000 per capita. Based on the same data source, income in Canada during 1985 was about $12,400 per capita.

Regional information on incomes in air stage communities is presented in Table 8. Although the $15 million air stage subsidy is small compared with the aggregate income in air stage communities, it is important to bear in mind that in 1988-1989, almost $14 million out of a total subsidy requirement of $18.2 million was spent in serving the Baffin region and northern Quebec. Northern Quebec alone accounted for over $10 million, compared with a total cash income of $54 million in 1985 in that region.

Income figures in isolation present a potentially misleading picture of the financial circumstances of residents of air stage communities. Because the cost of goods and services purchased locally is much higher than in southern Canada, income figures overestimate the real purchasing power of residents of these communities. On the other hand, many of their needs are met through the provision of government services.

Given the low incomes and high prices in most air stage communities, it is not surprising that most of the goods shipped on the air stage system are necessities of life: food (wherever Canada Post will accept it), water (in communities where the drinking water is of poor quality), personal care paper products such as toilet paper, diapers, tissues and sanitary napkins, clothing and footwear, and household supplies. Toys, bicycles, and a range of other goods which are less essential than nutritious food and clothing are also shipped. However, as several people pointed out during the consultations, the air stage system is not used, to any significant degree, to subsidize the shipment of luxury goods. It is better described as an important means by which the quality of life of poor people in a cold and difficult environment is sustained at a level above survival.

No information is presented in this report to describe the distribution of income in air stage communities among families, households, or individuals, other than the differences between native and non-native income. There are of course both very poor and some well-to-do households in both groups. The decision to present income only on a per capita basis was made partly in the interest of brevity, but also for the important reason that in many air stage communities, the income received in a particular household is not used to provide only for the needs of that household. While this is true in the south as well, the sharing of resources is much more prevalent in such communities than elsewhere. This sharing comes about primarily through the sharing of food, including food purchased from stores as well as country food. Although the tradition of sharing has broken down in some communities, it would be misleading to assume either that a poor household consumes only what it purchases or that a higher income household provides only for itself. The study team was impressed by the extent to which more fortunate households responded to the needs of others forced to beg for food or perceived to be in need. Food banks may not exist in air stage communities, but the same purpose is served by less formal mechanisms - and not only within the native community.

Although data on the distribution of family and household income in air stage communities are available, there are no studies documenting the incidence or depth of poverty in such communities, where the poverty lines or "low-income cutoffs" developed for various sizes of communities in the south have no relevance. The following discussion of dependence on social assistance, however, provides information relevant to the extent of poverty in air stage communities.

Social Assistance

Special attention has been paid in this study to the social assistance system for several reasons. First, the dependence on social assistance is much higher in most air stage communities than in Canada generally. Secondly, the impact of price changes resulting from the decline in the air stage subsidy will be especially hard on people on social assistance unless the relevant provincial and territorial governments make compensatory adjustments in benefits. Such adjustments would also have consequences for federal expenditure. Thirdly, the social assistance system has been suggested as one of the alternatives to the air stage subsidy, since it may provide a means of focusing the money more clearly on those most in need of some form of transportation subsidy on essential consumer goods in remote communities. Consideration was also given to the possible impact of alternative ways of managing and allocating the air stage subsidy on social assistance systems and recipients.

Several kinds of information about social assistance are presented in this report: the scales used to determine the level of benefits, including the extent to which changes in scales respond to local price differences and changes; the degree of dependence on social assistance, as measured by the total payments and numbers of beneficiaries; and the roles of federal, provincial, territorial and local governments in funding and managing this system.

Social Assistance Scales

Described by the National Council of Welfare as the "tangled safety net," social assistance presents a special challenge in making comparisons among the 10 provincial and territorial jurisdictions in which air stage communities are found. Previous studies which have made interprovincial comparisons do not address the special circumstances in remote communities where costs, needs and scales of benefits differ from those in the south.

In order to provide some indication of the resources available to a family on welfare in different air stage communities, two "standard families" on welfare were chosen, and the income they would have available for basic needs ***after*** meeting shelter costs was calculated. Two families were chosen: a two-parent, two-child family and a single parent with three children. In both cases, the parents were assumed not to be disabled or on a training course, since in some jurisdictions they would be eligible for higher benefits under those circumstances. In other words, though able-bodied and

employable, the parents in these families were assumed to have no income from employment and no assets which would disqualify them from receiving social assistance. Such cases are not unusual in communities where opportunities for employment are so limited.

Table 9 presents information on the total income available to the two types of families in each region after meeting shelter costs. The figures represent the maximum amounts which these families would receive from basic social assistance payments, tax credits and Family Allowance. They could receive additional amounts for "special needs." On the other hand, if they had significant amounts of other income or resources, their social assistance payments would be decreased accordingly.

After meeting shelter costs, the total income available to a family with two adults and two children on social assistance ranges from $719 per month in Labrador to $1,231 in northern Ontario, i.e. 71 percent higher than in Labrador. In air stage communities in the Northwest Territories, where the scales reflect local differences in food costs based on a price survey in 1987, the total income of a similar family ranges from $816 in Arviat to $1,113 in Gjoa Haven. British Columbia, Alberta and Quebec have no special northern allowances similar to those in Saskatchewan, Ontario and Manitoba which are intended to compensate for higher costs in remote areas. The fuel allowance provided in Labrador does not affect the amount of income left after meeting shelter costs, which include fuel.

The figures presented here do not provide a reliable indication of the financial circumstances of families on welfare, since they do not take into account regional differences in the cost of food and other essential goods and services. Chapter V, however, compares the cost of food with the income available to such families.

Social Assistance Payments and Beneficiaries

There are large regional differences in the degree of dependency on social assistance (Table 10). Using monthly averages, over two thirds of the population in air stage communities in Manitoba, and over half of those in northern Ontario and Saskatchewan receive welfare payments. Welfare dependency is much less (between 21 and 26 percent) in air stage communities in the Northwest Territories, the north coast of Labrador, northern Quebec and the Quebec north shore, although the welfare dependency rates within the Northwest Territories ranged from 17 percent in the Inuvik region to 37 percent in the Kitikmeot region in 1988-1989. Only about 5 percent of the population in central and southern Labrador and the James Bay region of Quebec are on welfare at a given time.

An analysis of these regional differences is beyond the scope of this report. It may be noted, however, that factors which could account for them include the resource base, employment opportunities, the availability and success of economic development and training programs, the Unemployment Insurance benefits available to fishermen in Labrador, the Cree Hunter Income Support Program in the James Bay region, and family stability.

Regional differences in welfare payments, also shown in Table 10, closely follow the pattern of dependency rates, though they are also affected by the benefits scales in each jurisdiction. Payments range from just over $100 per capita in central and southern Labrador to over $1,400 per capita in northern Ontario. Total payments for basic needs to residents of air stage communities in the regions included in Table 10 were about $65 million in 1988-1989.

Responsibilities

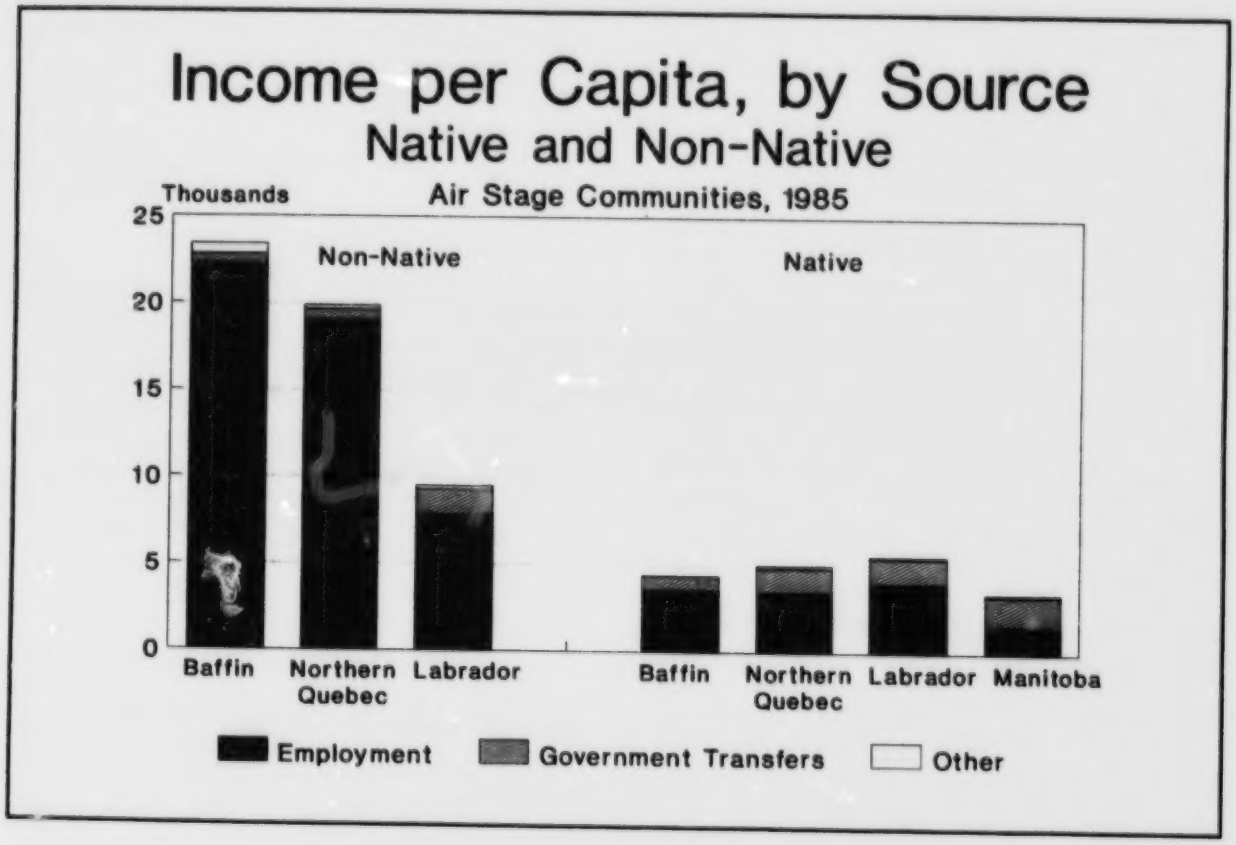
Social assistance programs are a provincial and territorial responsibility. However, under the Canada Assistance Plan, Health and Welfare Canada reimburses the provinces and territories for half the eligible cost. The Department of Indian Affairs and Northern Development is responsible for the funding of social assistance for status Indians on reserve, which in most cases is delivered by bands in accordance with provincial regulations. Because many of the air stage communities are reserves, the federal government's share of social assistance payments in air stage communities, as shown in Table 10, is about $50 million, or 76 percent of the total expenditure. However, the federal government's share ranges from 50 percent in Labrador, the Northwest Territories and northern Quebec to almost 100 percent where most of the air stage communities are reserves.

Other Sources of Income

The preceding section of the report described the social assistance system in some detail. One should not lose sight of the fact, however, that in most air stage communities, social assistance provides less than 10 percent of the total income received in the community, even though half or more of the population may be on welfare at some point during the year. (The 10 percent figures may be exceeded in certain

reserves in northern Ontario and Manitoba.) By comparison, only about one percent of personal income in Canada is from social assistance. Other transfer programs - Unemployment Insurance, Child Tax Credits, Family Allowance, Workers' Compensation, Old Age Security, Guaranteed Income Supplement, etc. - are also important, but the major source of income is from employment. This is the case even among native people, though to a lesser extent than among non-natives. Figure 6 shows the relative importance of various sources of income received in 1985 by native and non-native residents of air stage communities in the Baffin region, northern Quebec, Labrador, and Manitoba. Although it is not possible from the data source (the 1986 Census of Canada) to separate social assistance from other transfers, it is clear that, except in Manitoba, all forms of government transfers account for less native income than does employment. Most employment, however, is directly or indirectly paid by various levels of government.

Figure 6



In considering the impact of the decline in the air stage subsidy, therefore, it will be important to examine how income from employment, and the real purchasing power of that income, will change, and how public and private sector employers would adjust to any increases in the cost of living in air stage communities as the subsidy is removed. Although some employers, such as governments and mining companies, provide salaries and benefits which to some degree compensate their labour force for the additional cost of living in remote communities, a substantial share of employment in air stage communities is in part-time, casual, or seasonal jobs and in occupations which do not command high rates of pay. Many of these jobs are occupied by permanent residents with ties to the community who are willing to work for wages which would not attract labour from the south. Consequently, this report will consider what the declining subsidy may mean for someone working year-round, full-time for the minimum wage in each jurisdiction.

CHAPTER IV

HEALTH AND NUTRITION

Health, according to the World Health Organization, is "not just freedom from disease, but complete physical, mental and social well-being" and "the extent to which an individual or group is able on the one hand to realize aspirations and satisfy needs and on the other hand, to change or cope with the environment" (WHO, 1984). This concept of health was incorporated into Canada's framework for health promotion, ***Achieving Health for All,*** which emphasizes the reduction of health inequities between low- and high-income Canadians, the prevention of illness, and enhancing the ability to cope as Canada's challenges in health, an essential dimension of the quality of our lives (Epp, 1986).

To evaluate the impact of the air stage subsidy on health and nutritional status, one needs to have an appreciation for the health and nutritional status of those most affected, an understanding of their dependence on imported food, consumption trends, and factors influencing food choices. Some relevant information is provided here. However, this chapter and that on Northern Food Prices are a summary of a more thorough study prepared for Health and Welfare Canada specifically for this review, copies of which are available from Health and Welfare Canada.

Native Health and Nutritional Status

Prior to contact with Europeans, North American Indians and Inuit enjoyed excellent health, endurance, dental health and ability to recover from wounds, and were free of many of the infectious diseases known in Europe, Asia and Africa. Health problems resulted from shortages in the food supply due to natural forces, rather than nutritional deficiencies.

Today, the health of the northern Indian and Inuit population is characterized by a postneonatal mortality rate three to four times that of other Canadians, a much higher rate of infectious disease (e.g. meningitis, otitis media, tuberculosis, gastroenteritis) and respiratory disease (e.g. pneumonia, bronchitis), a lower life expectancy, and, among the Inuit, a much higher prevalence of premature births and low birthweight infants. Indian and Inuit children suffer from more severe illnesses, with more frequent occurrence and, in the Northwest Territories, are hospitalized three times more frequently than non-native children. Infant mortality rates are highest in the Baffin region and Labrador.

While diseases of infectious origin continue to predominate in the Arctic and sub-Arctic, there is a growing concern among health authorities over the rapid emergence of "lifestyle" diseases, such as diabetes, cardiovascular disease, colorectal and breast cancer, as well as hypertension to which lifestyle is a contributing factor. All of these diseases appear to be directly related to the degree of acculturation, or adaptation to a "southern" diet and lifestyle. Other lifestyle diseases, largely attributable to the excessive consumption of sugar, include dental decay and baby bottle syndrome, which occur at rates far exceeding those of southern Canada and frequently result in the need for complete dental extractions or orthodontic treatment. Among Indians, there is also a high prevalence of high birthweight infants.

Among southern and eastern aboriginal groups, diabetes is reaching epidemic proportions, with a prevalence far exceeding that of non-natives. Furthermore, the incidence of cardiovascular and renal complications of diabetes among Indians is escalating at a much higher rate than in the non-native population.

Northern Indians and Inuit also suffer from a greater prevalence of mental illness, a much higher suicide rate, particularly among young people, and widespread abuse of alcohol and drugs where and when they are available. These problems are associated with a loss of cultural identity, a lack of meaningful employment and control over the future, and little hope of escape from dependence on social assistance, as well as the loss of traditional support systems and the customs and expertise involved in the procurement, distribution and preparation of the traditional diet. In almost every community meeting that the study team attended, people expressed anxiety over their inability to adequately feed their families on their current income and grave concern over the possibility of further food price increases, especially at a time when the access to and safety of country food is in question. The strain on the extended family system, in its attempt to share its income and food resources with others, was also quite evident.

A deficiency or excess of any nutrient will, over a period of time, lead to ill health or disease. While severe nutrient deficiencies are rare in Canada, vitamin D-deficient infantile rickets is still being diagnosed in northern Manitoba and the Baffin. This condition has been virtually eradicated in the western world. Indian and Inuit groups have been found to be at moderate or high risk of deficiency of certain essential nutrients, such as iron and calcium, vitamins A, C and D, and folacin, and to have a high prevalence of diseases which are either directly or indirectly nutrition-related. Inadequate intake of these essential nutrients may decrease immunocompetence and increase susceptibility to infection. Inadequate iron intake may also lead to iron-deficiency anaemia and interfere with optimum mental development, cognitive performance, work performance, capacity for physical activity, and, during pregnancy, with normal obstetrical performance.

The groups at highest risk of nutritional deficiency are pregnant women and infants. Nutrition during pregnancy and infancy has a major effect on the survival, health and development of the child. An inadequate diet during pregnancy increases the risk of low birthweight infants. These infants have a greater risk of perinatal mortality and physical and mental handicaps. Poor infant nutrition impairs development and growth, learning and behaviour, resistance to infection and recovery from illness.

Throughout the study team's consultations with local health officials, and in written submissions, the team was told of children going to school without breakfast, unable to concentrate and suffering from fatigue. Iron deficiency anaemia was cited by local health authorities as a major problem for infants, preschool children and pregnant women in most communities in the Baffin, Repulse Bay, northern Quebec and Labrador. Local medical authorities also confirmed the prevalence of low birthweight, a high postneonatal mortality rate and a high incidence of infectious and respiratory disease. In addition to these problems, medical authorities in northern Ontario and Quebec cited a rapidly increasing prevalence of obesity, diabetes, hypertension and cardiovascular disease. All of these observations are consistent with the scientific evidence collected to date.

Impact of Socioeconomic Conditions on Health and Nutrition

Most of the health and nutrition problems afflicting northern Indians and Inuit are preventable, and are associated with poor socioeconomic conditions, including diet, poor housing, unsafe water supply, little formal education, a low literacy level and lifestyle. Today, many northern Indians and Inuit find themselves unemployed, dependent on social assistance, unable to purchase a nutritionally adequate diet and/or lacking the skills to cope with a cash income society.

Many of the nutrition-related health problems (e.g. iron-deficiency anaemia) prevalent among northern Inuit and Indians are also widespread among low-income groups in urban centres, where the adequacy of the diet has been demonstrated to be directly related to the level of income and the amount spent on food. A recent study on the influence of poverty on nutrition in Regina concluded that the "clear and indisputable cause of hunger is poverty - not waste, not laziness, not mismanagement, ... but from people not having enough money to buy food for themselves and their families" (Inquiry into Hunger in Regina, 1989). Malnutrition and poverty coexist in a vicious cycle. Poverty reduces the ability to purchase a nutritious diet and to meet basic nutritional needs for good health. It creates a continual frustration and emotional stress and a sense of insecurity as families struggle to feed their children. Malnutrition lowers the body's ability to resist physiological and psychological stress, which increases the individual's susceptibility to infection and disease, which further increases the nutrient requirements, reduces the capacity to work or learn, and increases family tensions and the likelihood of low educational achievement. Moreover, this cycle often continues from one generation to the next.

Low socioeconomic status places groups with increased nutrient needs at special risk. Pregnant women, infants, growing children, the elderly, and those recovering from illness are most likely to be affected. According to the Federal-Provincial Subcommittee on Nutrition, "Women from low socio-economic backgrounds may be prone to long-standing poor diets, stress, infections, and closely-spaced pregnancies, all of which may compromise nutrition status and pregnancy outcome." Such an environment is seldom present only during pregnancy. It often exists throughout life and will continue to affect the child during its early years.

Food Consumption: Imported vs Country food

The importance of imported foods to the diet of Indian and Inuit in northern Canada varies widely by region, community, and family. While country foods continue to be an important part of the native diet in many Arctic and sub-Arctic regions, the dependence on imported food has been steadily increasing, especially among the younger generation, and all native communities rely to some degree on imported foods, particularly during the winter months and spring breakup.

Access to country foods depends on supply. Adequate financial resources are needed to obtain and maintain necessary hunting and fishing equipment and supplies. Annual fluctuations in migratory patterns, seasonal fluctuations in supply and quotas for char, beluga whale, etc. and declining fish stocks (e.g. in Labrador) all have an impact on the availability of these foods.

The collapse of the seal industry has deprived the Inuit of a vital source of cash income. With less cash income, many hunters lack the financial resources necessary to purchase and maintain hunting and fishing equipment. The annual cost of capital equipment (snowmobile, outboard motor, boat, rifles, etc.) and operating supplies (ammunition, gas, etc.) for a full-time hunter in Arctic Bay was estimated to be over $10,000 in 1986 (Hamlet of Arctic Bay, 1987). Such costs make access to country food prohibitive for families on social assistance or the working poor. The particularly severe climate of the north and sudden weather changes place a great deal of stress on equipment, and difficulties and delays encountered in obtaining replacement parts add to the problems of obtaining country food.

The lack of financial resources necessary to obtain country food places the native family at increased nutritional risk, since the imported alternatives are generally more expensive. This is particularly true for imported foods which are primary sources of vitamin A and C (fruits and vegetables), calcium (dairy products), folacin (fruit, vegetables) and iron (whole grain and fortified cereal and bakery products) and products such as infant formula.

The trend away from the traditional diet among the younger generation is the result of a complex set of factors, including declining stocks, a concern over the safety of country foods, inadequate income to support the cost of hunting and fishing, travel limitations on family members due to the educational system, a growing preference for imported foods among younger people in response to television advertising, travel and exposure to new foods from the south, and the convenience offered by store-bought foods. With its rapidly growing, young population, the demand for imported food in the north can be expected to increase markedly over the foreseeable future.

The shift away from country foods to a "southern" diet is resulting in a radically different nutrient intake - from a diet rich in protein, high in polyunsaturated fat (especially omega-3 fatty acids) and rich in vitamins and minerals, to one with inadequate levels of essential nutrients such as vitamins A and C, iron and calcium, and higher than optimal levels of saturated fat, energy, sodium and refined carbohydrate. The high price of nutritious foods, many of which are perishable and therefore require air transportation, as documented in the following chapter, is a significant factor in accounting for the nutritional inadequacies in the diet of northerners who rely extensively on store-bought food.

The Communications/Implementation Committee of Health and Welfare Canada, concerned with the implementation of the revised national nutrition guidelines, cited the limited availability and high cost of some food products in isolated parts of Canada as a "challenge to food security for some segments of the population" (Health and Welfare Canada, 1990).

The high consumption of "junk" foods such as candy, soft drinks and fruit drinks is an important factor in the high prevalence of dental decay and baby bottle syndrome. While some researchers have found a significant increase in the consumption of convenience and fast foods with acculturation, many on social assistance in the central and eastern Arctic, as well as northern Quebec, told the study team that they were unable to afford to purchase vegetables, fruit and milk or even frozen meats. These foods are considered luxuries. Less nutritious foods, such as powdered fruit drinks, are a much less expensive way of satisfying hunger than more nutritious alternatives, such as fruit juice and milk.

The cost of infant formula was a major concern in every Inuit community since at least 40 percent of Inuit babies are adopted and, therefore, are not breastfed. Most mothers are only able to afford infant formula for the first two or three months. Evaporated milk, powdered whole milk or fruit drink is usually used as a replacement. Either evaporated or powdered whole milk may contribute to iron-deficiency anaemia. These products also place stress on the kidneys, due to their high protein and mineral content, and may lead to gastrointestinal problems. Obviously, fruit drink will not satisfy an infant's nutrient requirements and will contribute to baby bottle syndrome as well as iron-deficiency anaemia and failure to thrive.

High protein foods, such as meat, fish and poultry, may be replaced with products such as canned and packaged luncheon meats, macaroni and cheese dinner, bannock and gravy, canned meat stew or high carbohydrate foods - products lower in protein and iron and higher in saturated fat and sodium. Fruit drinks are a very popular beverage in the north. While they are an inexpensive source of vitamin C, they cannot replace fruit or fruit juice as a source of folacin, potassium and other trace minerals and vitamins. Even canned fruit cannot replace fresh, since the varieties sold in

the north generally tend to be packed in heavy syrup and are not particularly good sources of vitamin A or C. Most of the canned vegetables available are high in starch and sodium and low in vitamin A and folacin.

Nutrition knowledge is the second most important factor affecting dietary adequacy. For the northern Indian and Inuit, this is a serious problem. Many new coping skills are necessary, since they must learn to adapt to a cash economy. Most are unable to take advantage of bulk buying and are not entitled to a cargo allowance. Therefore they are forced to purchase food at local prices. Inuit must learn to cook food (which has not been part of their tradition). At the same time, many Indians and Inuit lack literacy in English or French, so that they are unable to read labels and to do comparative shopping.

Environmental Contamination of Country Food

At many community meetings, people expressed their anxiety over the contamination of country food and the impact this may have on their health, the health of their children, and the survival of their culture. The perceived potential threat of cancer and other diseases related to this contamination has led many to avoid country food, particularly the organ meats, and to abandon the traditional lifestyle.

The inter-agency working group on contaminants, established by the Department of Indian Affairs and Northern Development in 1985, has concluded that contamination of the Arctic ecosystem is serious and widespread. These contaminants, primarily from industrial pollution in northern Europe and North America, include organochlorine compounds (e.g. PCBs) and heavy metals (e.g. mercury and cadmium). Radioactive cesium is also present in low levels in caribou, but the level has been declining since the 1960s when atmospheric bomb tests were banned.

In northern Quebec, PCB levels in samples of breastmilk of Inuit women were determined to be approximately five times those of southern Caucasian women. While the full impact of PCBs on infant health is not known at this time, the level of PCBs is of particular concern for the foetus and infant. The concern that PCBs in breastmilk may have a negative effect on the infant's immune function, and therefore on its susceptibility to infectious and respiratory disease, is now being investigated.

With respect to PCB contamination of the Arctic food supply, medical authorities believe that, when the current state of knowledge about the hazards of these contaminants is compared to the known health benefits and the lack of nutritionally equivalent and affordable alternatives, the benefits of consumption of country food and of breastfeeding outweigh the risks. Mercury consumption can be minimized by targeting women in the child-bearing ages to avoid eating fish and educating the public to avoid those species with the highest mercury level.

Though not related to industrial pollution, concern about parasites in walrus and caribou has also reduced the consumption of traditional food. For example, because of a parasite problem, last winter marked the first time in history that the Inuit of Salluit did not hunt walrus, traditionally their major source of country food.

Conclusion

Significantly large numbers of aboriginal people in the north are suffering from poor health and malnutrition. Diet and nutritional status are related to the price and affordability of nutritious food. Although price is not the only factor influencing food choices, any measure which would further reduce the availability of nutritious foods would augment the number of people in that category and would increase the risk of greater morbidity and mortality. The impact would be greatest on the most vulnerable groups - infants, children and pregnant women.

There is a trend toward less consumption of country food, particularly among young people. This is due to declining stocks of some species, escalating costs of hunting and fishing, limitations on access to country food (quotas, restrictions, 9 to 5 employment, travelling distance), and fear over its safety, the influence of television, travel, exposure to southern foods and a continuing loss of hunting skills. It would be unrealistic to expect large numbers of young people in particular to revert to the traditional diet of their parents and grandparents.

CHAPTER V

NORTHERN FOOD PRICES

Northern Food Basket

To assess the impact of the phase-out of the air stage subsidy on food prices, Medical Services Branch, Health and Welfare Canada and Agriculture Canada jointly developed a "Northern Food Basket." The basket is modelled after Agriculture Canada's Thrifty Nutritious Food Basket, which is based on spending patterns of low-income Canadians, the 1990 Recommended Nutrient Intakes for Canadians, and Canada's Food Guide. The total quantities of foods from each of the food groups are similar to those in the Thrifty Nutritious Food Basket, but the foods and their relative importance within each group are based on their availability in isolated northern communities and information regarding their consumption, obtained from northern nutrition studies. This basket is not intended to be promoted as an "ideal" diet and should not be considered as such. It simply represents a price monitoring tool for a basket of food which meets nutrient requirements and takes into account consumption patterns and food availability. Forty-five foods were included in the Northern Food Basket (see Table 11).

The total weekly quantities of foods required to meet the 1990 Recommended Nutrient Intakes for a family of four were calculated. Since it was considered important to compare northerners' costs with those of similar families in southern cities, the same "reference family of four" which Agriculture Canada uses to calculate the cost of its Thrifty and Nutritious Food Baskets was used in this study. This family consists of a man (25-49 years), a woman (25-49 years), a boy (13-15 years) and a girl (7-9 years).

The nutrient composition of the Northern Food Basket was calculated using the Canadian Nutrient File, 1988, compiled by Health and Welfare Canada. The Northern Food Basket meets all of the newly revised Recommended Nutrient Intakes for Canadians for each family member, with the exception of pregnancy, during which additional iron in the form of supplements is required. The price of this supplement is not included in the cost of the basket.

In the Northern Food Basket, meat, poultry and fish are important sources of protein, fat and niacin. Cereal and bakery products are important sources of energy, protein, fat (especially saturated fat), calcium, iron, thiamin and niacin. Dairy products contribute the major portion of calcium and are an important source of vitamin A and vitamin C (evaporated milk). The most important sources of vitamin C are fruit drink crystals with vitamin C added, citrus fruit, canned tomatoes and evaporated milk. The percentage of energy from protein, fat and carbohydrate in the Northern Food Basket is 13, 30 and 57 percent, respectively. This distribution of energy sources conforms with the current Recommended Nutrient Intakes for Canadians, 1990.

Of particular importance from the point of view of food transportation is the fact that the perishable portion of the basket, which requires air transportation if it is to be available in air stage communities, is much smaller than it is in either of Agriculture Canada's standard baskets, and is also much smaller than the perishable portion of food consumed by most Canadians. Only half of the net weight of the Northern Food Basket consists of perishable food, compared with two thirds of the food purchased by Canadians in stores, according to Statistics Canada's food expenditure survey in 1986. The basket, therefore, could be expected to cost less in remote communities than a basket which included a more "normal" quantity of perishables requiring air transportation.

Although the Northern Food Basket is believed to be both thrifty and adequate to meet nutritional requirements, it does have a number of limitations, as follows:

1. The basket does not include country foods, which are known to be important to most native people, as well as being nutritious.

2. The Recommended Nutrient Intakes for Canadians are based on the needs of southern Canadians, living a moderately active lifestyle. Therefore, they may underestimate energy and iron required for a more traditional lifestyle. The level of protein is also much lower than that traditionally consumed by northern Indians and Inuit. The revised level of fat is lower than that consumed by most Canadians and may also be lower than levels in the traditional diet. In a non-traditional diet, a lower level of fat (especially saturated fat) is considered essential in order to reduce the risk of cardiovascular disease.

3. The northern basket could be criticised for overestimating the consumption of dairy products and carbohydrate foods, while underestimating the consumption of meats, poultry and fish by northern natives. Fat and protein were the principal sources of energy in the traditional diet. Very little carbohydrate was used. However, to duplicate this diet with store-bought foods would be prohibitively expensive. Most nutritionists believe that, once protein needs for growth and repair are met, carbohydrate foods are the least expensive source of energy (on a cost-per-serving basis) and would find it difficult to justify the use of additional protein for this purpose. Whether it is reasonable to make these assumptions for native people who have, over thousands of years, adapted to a high animal protein diet, is not known.

4. Regional variations in food preferences have not been taken into account, since detailed consumption data are not available. Therefore the relative weighting of foods within each group may not reflect regional purchasing patterns.

5. The northern basket recognizes the use of popular foods such as canned luncheon meat, bologna, and canned stew by including them in the Meat Alternates Group. However, it deliberately underestimates their probable consumption. Placing them in the Meat, Poultry and Fish Group, would mean a diet excessively high in fat and sodium, and low in iron.

6. Modifications to the Sugar and Sweets Group were made to include fruit drink crystals (with vitamin C added). This change recognizes the widespread use of such products in the north and helps to satisfy the requirements for vitamin C and calcium in the form of calcium phosphate.

Food Pricing Method

As shown on the map in Appendix 2, food prices were collected in each of the food outlets in communities in the Baffin, Keewatin and Kitikmeot regions of the Northwest Territories, James Bay, northern Quebec, northern Ontario, and Labrador at the time of community consultations (April to July, 1990). Prices for Fort Ware, British Columbia were supplied by Medical Services Branch, Pacific Region. Except in Goose Bay, prices for Labrador were taken by the Community Health Representatives or local community members.

National brands were used for most products in order to ensure consistency of quality. For other foods, the cheapest per unit price was used. For fresh fruit and vegetables, all market units were priced and the cheapest price per kilogram used. Fluid milk (2%) and ultra high temperature (UHT) milk were priced where both were available and the cheapest price per litre used. The cheapest price available for each product in each community was selected. Finally, five percent of the cost of all items was added to the cost of the basket to allow for the purchase of miscellaneous food items such as condiments, spices, seasonings, coffee, tea, baking powder, etc.

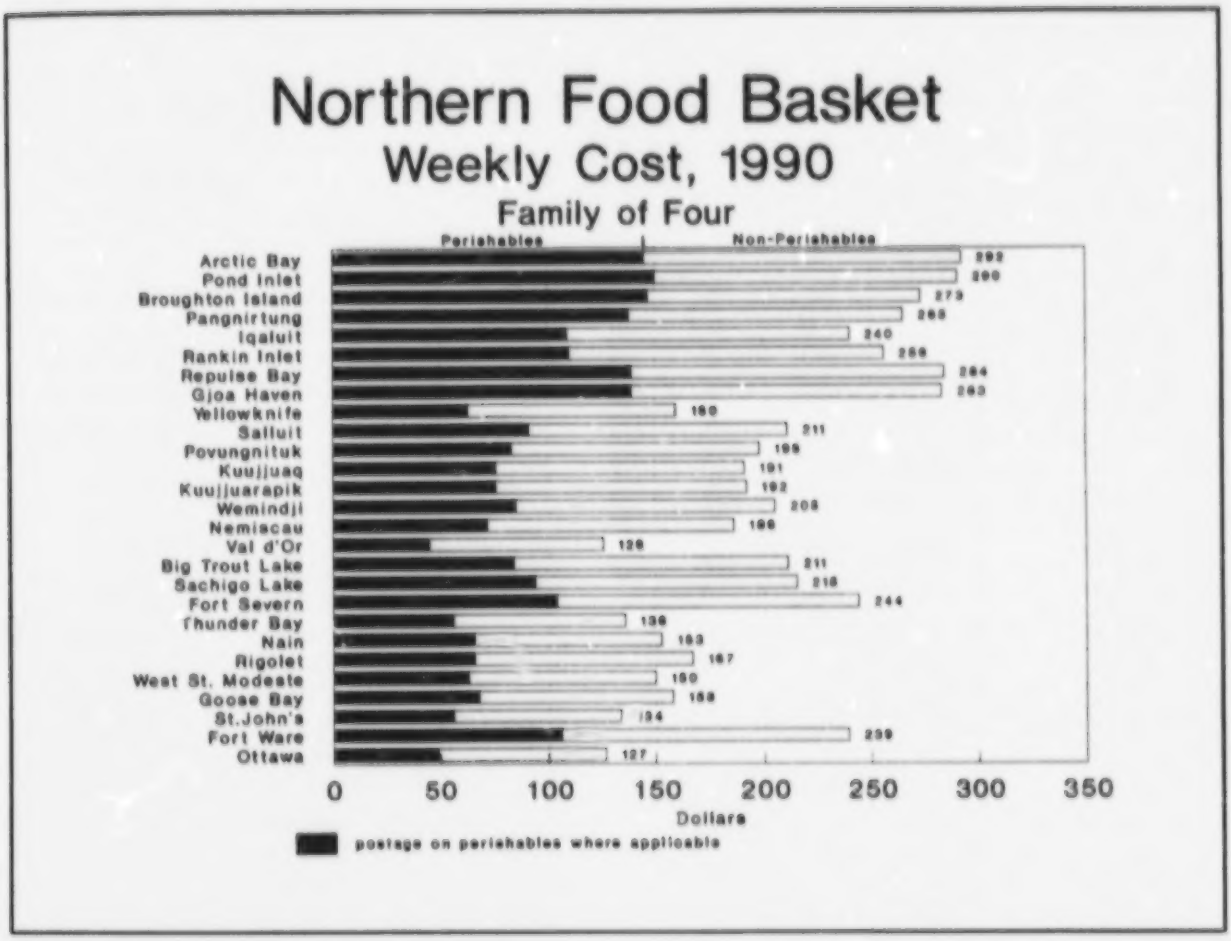
Food Prices: Regional Variation

The weekly cost of the northern food basket in each community is shown in Figure 7 and Table 12. The highest prices are in the Baffin region and in Repulse Bay and Gjoa Haven in the Keewatin and Kitikmeot regions of the Northwest Territories. The total cost of the basket in these communities is almost $300, or about two and one quarter times as high as in Ottawa. The basket costs about $200 in northern Quebec and northern Ontario, although almost $250 in Fort Severn, the most northerly community in Ontario. The cost in Fort Ware, British Columbia, is also well over $200, and is understood to be about 30 percent higher during the winter months when food must be flown in. In Labrador, the basket costs about 25 percent more than in Ottawa. Prices in Thunder Bay, St. John's and Val d'Or were similar to those in Ottawa.

Food Prices: Perishables and Non-perishables

Figure 7 presents the weekly cost of the perishable and non-perishable items in the Northern Food Basket for a family of four in the 27 communities surveyed for this report. The amounts and price indices are also shown in Table 12. Where applicable, the postage paid for the perishable items is indicated separately. Although some non-perishable items may also have come through the mail, the postage or other transportation costs for non-perishable items could not be identified separately because of the different rates and modes of transportation used.

Figure 7



Several observations can be made from this presentation. First, ***perishable*** food is about three times as expensive in the Baffin region as in Ottawa. Baffin prices are also substantially higher than in northern Quebec or northern Ontario. The difference between the average cost of the perishable portion of the food basket in Baffin (excluding Iqaluit) and northern Quebec is about $63. Most of that difference is explained by the additional $49 in postage. In fact, if retailers' markup is assumed to be applied to their total landed cost - as seems to be the practice - the difference in postage rates will fully account for the differences between the two regions in the cost of perishable food. Lower transportation costs for merchants in northern Quebec are clearly reflected in lower perishable food prices.

Postage rates in northern Ontario are about 12 cents per kilogram less than in northern Quebec. This difference would amount to about $4 for the perishable items in the weekly food basket. However, in the two communities surveyed in northern Ontario which use food mail service, particularly Fort Severn, food prices are somewhat higher than in northern Quebec. All the communities surveyed in northern Quebec have at least two grocery stores. Since the two communities in northern Ontario have only one grocery store - a Northern store in Fort Severn and a cooperative in Sachigo Lake - competition appears also to affect prices.

Another point of interest is that the prices of non-perishables are also higher in the Baffin region than in northern Quebec, although the difference is less than it is for perishables. Two explanations are possible. First, since a great deal of the non-perishable food in northern Quebec was sent by mail at a rate of about 65 cents per kilogram, merchants there may be able to charge less than in the Baffin where most of the items would have come by sealift. Although sealift rates themselves are about 50 cents per kilogram, the additional storage and

financing costs involved make the final price somewhat higher. Secondly, since merchants had run short of sealift supplies, a few of the non-perishable items in the Baffin region also came through the mail, at a rate of about $2.10 per kilogram. These items would therefore be much more expensive than in Quebec.

There is relatively little variation in perishable food prices among the four surveyed communities in the Baffin region which receive food mail. Among the four other communities in the Northwest Territories which use air cargo service, on the other hand, perishable food prices vary substantially, in parallel with air cargo rates. Prices in Iqaluit and Rankin Inlet are significantly lower than in Repulse Bay or Gjoa Haven. Prices in Yellowknife and in Nemiscau, Quebec which have road connections with the south, are less than in the communities which rely on air transportation.

Labrador prices averaged about 25 percent above those in Ottawa. As expected, the difference is greater for perishables. Contrary to the opinions expressed during the consultations in Labrador, prices in Nain were lower than in Goose Bay, despite the fact that perishable items are flown to Nain from Goose Bay. Nain prices, however, are artificially low, since the government-run store there operates at a loss. Prices in Rigolet, which has only a Northern store, are somewhat higher.

Cost of Selected Food Items

High food costs, particularly of dairy products, fruits and vegetables, have been frequently cited as a major obstacle to the purchase of nutritious foods by northerners and were mentioned in every community meeting as well as by health and social services officials in each community visited and in written submissions. This survey found that perishable and non-perishable dairy products and fruits and vegetables account for the largest share of the cost of the Northern Food Basket.

Prices of selected food and grocery items are presented in Table 13. It is apparent that many nutritious foods, infant formula and other necessary items, e.g. diapers, are much more expensive in most northern communities.

Pricing policy in northern stores would appear to favour certain snack foods. For example, the price of potato chips in some northern communities is less or only marginally higher than regular Ottawa prices. This makes the choice of a nutritious snack quite difficult. For example, in Pond Inlet, an apple or an orange costs approximately 4 times as much as in Ottawa. An eight-ounce serving of UHT milk in Pond Inlet costs $1.04, almost four times as much as a serving of fruit drink crystals with added vitamin C (e.g. Tang). In Ottawa, a serving of milk, even if purchased in a one-litre carton, costs only 32 cents, 2.5 times as much as Tang.

Food Costs vs. Income

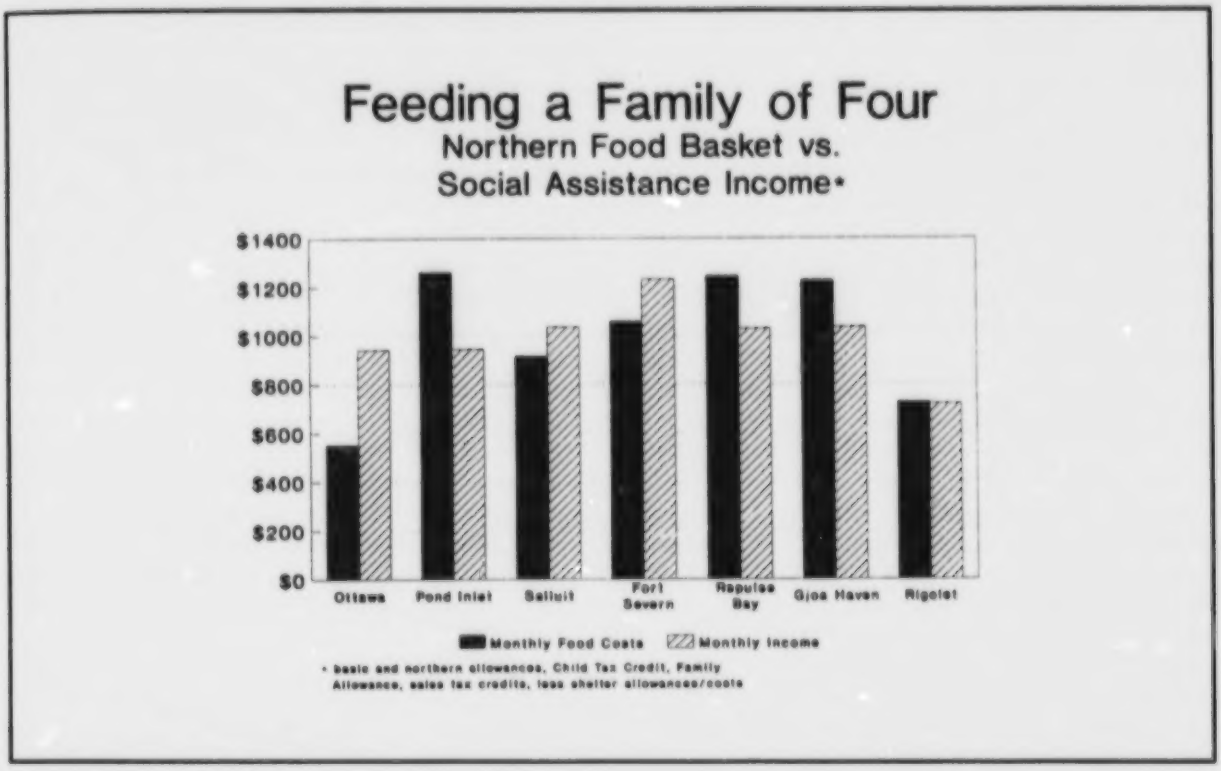
The monthly cost of the Northern Food Basket was compared to the total income of a two-parent family of four on social assistance, as presented in Chapter III. The results for selected communities are illustrated in Figure 8. Because of the community differences in both social assistance scales and food prices, people on social assistance are at greater nutritional risk in some communities than in others. The percentage of after-shelter income required to purchase a nutritionally adequate diet for a family of four ranged from 58 percent in Ottawa to 141 percent in Fort Ware, British Columbia (Table 14). Regionally, this percentage ranges from 92 to 108 percent in Labrador, from 74 to 86 percent in northern Ontario, from 78 to 88 percent in northern Quebec and from 109 to 133 percent in the Northwest Territories. Clearly, it is not possible to purchase this basket on current social assistance rates in the Baffin, Kitikmeot, or Keewatin regions or northern British Columbia. In other regions, obtaining an adequate diet would still be extremely difficult, since food expenditures would require almost all of the social assistance income, leaving little or nothing for clothing and personal care.

Social assistance income is also clearly inadequate to meet the additional nutritional needs of pregnancy despite additional allowances provided by some provinces. In the Northwest Territories and most provinces, such "special needs" allowances are not automatically provided unless authorized by the local social worker.

Since many native families are single-parent families, the adequacy of total social assistance income in meeting nutritional needs for a single-parent family of four was also examined. Their ability to purchase an adequate diet was not significantly different from that of the two-parent family of four.

Table 14 also compares the cost of the basket with the total income of those working at minimum wage, since many employed northern native people are likely to be in this wage category. Most northern families earning minimum wage (including Family Allowance, child tax credit and federal and provincial sales tax credits) would be unable to purchase the

Figure 8



Northern Food Basket. If the relative purchasing power is compared for each community, it would require 70 to 120 percent of minimum wage income to feed a family of four. Such families would be in a precarious position indeed, since they would still have to pay for housing, fuel and utilities, though at subsidized rates, and buy clothing, personal and household supplies, etc.

The inability of low-income people to afford a nutritious diet was mentioned at virtually all of the community meetings held for this review. Within each region the extent of participation and depth of concern expressed at these meetings reflected to some degree the community differences in the ability of families on social assistance to purchase a nutritious diet as revealed by the price and income data collected.

Despite the high food prices, people in remote communities on social assistance or working in low-paying jobs manage to survive. They can do so, in many instances, because they have access to store-bought and country food obtained from other members of the community, and by consuming much less store-bought perishable food than would be required for a nutritious diet. The figures presented earlier on the volumes of perishable food shipped by Canada Post, particularly to the Baffin region, confirm that perishable food consumption in that region is very modest indeed. When averaged over the 11 communities in the Baffin region which use food mail service, the 880,000 kilograms of perishable food shipped by Canada Post in 1988/89 amounted to about 138 kilograms per capita, or about one quarter of the average amount of perishable food consumed by Canadians. Consumption of perishable food shipped by Canada Post to northern Quebec, where prices are lower because of the lower postage rate, is about twice as high as in the Baffin region, or about half the Canadian average consumption. The portion of this food which is consumed by persons on social assistance or in low-paying jobs is not known. However, particularly in the Baffin region, prices are clearly a major deterrent to consuming perishable food, and even non-perishable items are much more expensive than in the south. Under these circumstances, nutritional and health problems among low-income people in the north, and particularly among those whose nutrient needs are greatest (infants, children and pregnant women), are to be expected.

CHAPTER VI

IMPACT OF THE AIR STAGE SUBSIDY REDUCTION

The air stage subsidy is one link in a chain of interests involving manufacturers of food and other goods, wholesalers, distributors, airlines, retailers, residents of air stage communities (both as consumers and producers), Canada Post Corporation and Canadian taxpayers. Native people are represented in all of these links, but most prominently as residents of air stage communities and the owner of airlines and one of the major distributing firms in Val d'Or, Distributions Marcel Lacroix Ltée., which was purchased by the Cree Regional Economic Enterprises Company (Creeco) in 1989. The chain of events and changes precipitated by past and any future reductions in the air stage subsidy affects all of these and other interest groups. This portion of the report describes the impact on each of these groups, focusing first on Canada Post and postage rates.

Postage Rates

Since a subsidy specifically for air stage service began in 1986, it has declined by $1 million per year from $19 million to $15 million in 1990/91. Postage rates were increased substantially on April 1, 1987 and on January 31, 1990. Although the subsidy reduction may have been partly responsible for the rate increases, factors other than the reduction in the subsidy were also responsible. The volume of goods handled increased by 16 percent between 1986-1987 and 1988-1989. Canada Post was successful in reducing its costs per kilogram of goods shipped, although the study team has not been able to establish the extent of any change in Canada Post's air transportation costs per tonne-kilometre. Nevertheless, if the volume of goods shipped had not increased, the Corporation may have been able to avoid rate increases.

The presumption behind the air stage subsidy is that it enables Canada Post to charge rates which are lower than they would otherwise be, and that the rate which Canada Post must charge its customers is affected only by the volume of goods shipped to each destination, its costs per tonne-kilometre, and the amount of subsidy which the government provides for this purpose. Canada Post's unit costs are assumed to be as low as possible, regardless of the existence or level of subsidy. In other words, a change in the level of subsidy is assumed to be reflected in postage rates, rather than a change in the rates which Canada Post pays to the air carriers. Therefore, users of the postal system, and ultimately consumers in air stage communities, rather than the air carriers, become the primary beneficiaries of the subsidy. However, people can afford to consume a higher volume of goods and services if prices are lower because of the air stage subsidy. To the extent that these goods are brought in by either air cargo or parcel post or the saving is used to purchase trips elsewhere, the air carriers also benefit indirectly from the subsidy.

In order to provide letter service and non-commercial parcel service to remote communities, for which no subsidy is provided, Canada Post has an interest in negotiating the lowest rates possible with the air carriers, with or without the air stage subsidy. Past reductions in the air stage subsidy may also have encouraged Canada Post to negotiate better rates with the air carriers in order to avoid unpopular rate increases. It seems reasonable to conclude, however, that the level of subsidy has had and will continue to have a strong impact on changes in postage rates. The following analysis is based on such a conclusion.

Consumer Prices

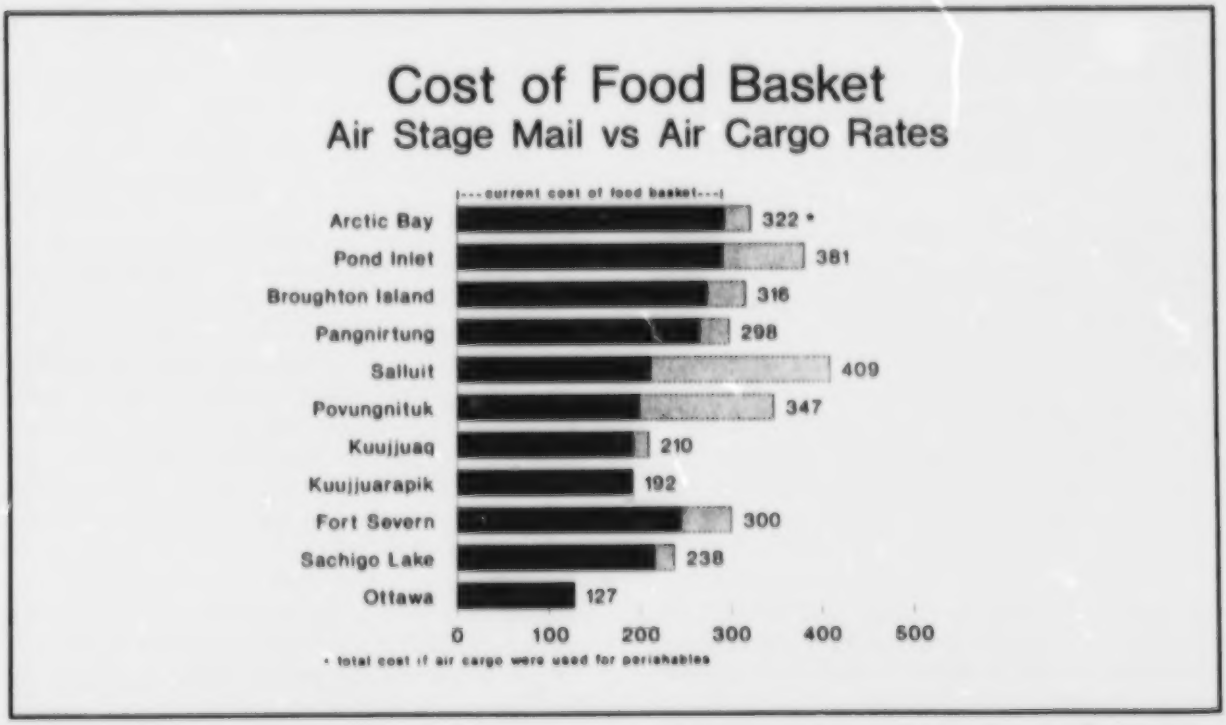
It would be simple - but incorrect - to assume that with each $1 million reduction in the air stage subsidy, it costs residents of air stage communities another $1 million to maintain the same living standard. It would also be incorrect to assume that any effect of past reductions in the subsidy will be the same as those of any future reductions. As the subsidy declines, it sets into motion a series of responses by all parties. During the phase-out period, certain critical points would be reached, causing fundamental changes in the transportation and merchandising system, particularly in the more remote communities. Nevertheless, if the subsidy were reduced by $1 million per year over the next 15 years, residents of air stage communities would by then be paying the full transportation cost on any food or other goods which they received by air. The approach taken, therefore, was to estimate the impact of a complete phase-out of the subsidy on prices in selected communities, based on certain assumptions. The Thrifty, Nutritious Northern Food Basket presented in the

previous analysis was used to illustrate the impact on food prices.

The timing and process by which the changes would come about should first be considered, since they would not appear overnight with the current schedule of annual reductions in the subsidy. With each $1 million reduction, Canada Post would make compensatory increases in postal rates, unless it were able to reduce its costs. Some further cost reduction may be possible, but there are limits beyond which no reduction is possible if airlines are to continue to operate. With each rate increase, the communities where air cargo rates would become less than the postage rate would effectively be removed from the air stage postal service. Although Canada Post charges its customers the same rate for service to every community within a certain region, both Canada Post's costs and commercial air cargo rates vary within each region according to distance and other factors influencing airlines' operating costs. Each rate increase would therefore see more communities move into a situation where the air cargo rate would be less than the postage rate. Canada Post would always be left primarily serving the communities with the highest air cargo rates in each region. Its service areas would gradually contract until only places such as Salluit and Grise Fiord would be obtaining any substantial benefit from the subsidy in its final year of existence. When the subsidy had entirely disappeared, there would be no point in distributors' using Canada Post, unless the bargaining power of Canada Post enabled it to keep rates below those available to other businesses even without a subsidy. It is assumed in the following analysis, however, that Canada Post would be out of the commercial air stage parcel business, and that distributors would deal directly with the airlines and pay the prevailing rate to each community.

Table 15 and Figure 9 show how the price of a weekly food basket would change if consumers paid the current commercial air cargo rate, instead of the current postage rate, for the perishable items in the basket. Unlike the postage rate, which is the same for each community in the same regional destination, air cargo rates are specific to each community, ranging from 70 cents per kilogram from La Grande to Kuujjuarapik to $7.29 per kilogram to Salluit. Because of these differences, the impact would differ greatly among communities. The price of the weekly food basket would remain the same in Kuujjuarapik, but increase by as much as $198 in Salluit, where it would cost over $21,000 per year to provide a basic diet for a family of four. Prices in the Baffin region would be slightly less than in the far north of Quebec. Among the four Baffin communities shown, the increase would be greatest in Pond Inlet.

Figure 9



For a number of reasons, the impact of the removal of the subsidy may be either greater or less than suggested in Table 15. First, to the extent that non-perishable items are also sent through the air stage system - as they are to a significant extent in Quebec - their price would also increase. Although greater use would be made of the sealift, it is impossible to entirely eliminate the need for air transportation for non-perishable food, and some impact on its price would be expected.

On the other hand, high-volume users of air cargo service may be able to negotiate lower rates than those presented here, which are the lowest published rates for large shipments. The rates which Canada Post pays to the airlines are not available to the study team. While actual rates for high-volume shipments may be somewhat less than those used here, one can be assured that, for many communities, the rates would be much higher than the current, subsidized postage rate, particularly in northern Quebec. The distances, operating conditions, and infrastructure are such that air cargo service cannot be provided at a rate that would avoid large increases in food prices in the more remote air stage communities without some form of subsidy.

Prices would increase by more than the difference between postage rates and air cargo rates if merchants were to apply the same margin to the increased landed cost of the goods, instead of passing on only the additional transportation cost. There may also be upward pressure on prices because of reduced competition, as discussed below. In some communities, the market for perishable food could virtually disappear.

The impact on prices of other goods would generally be less than on food prices. Transportation, whether by air or surface modes, is a relatively small share of the final cost of clothing, hardware, etc., whose value per unit of weight is relatively high. However, the impact would be significant in the case of paper products, personal care items, and household supplies if they were sent by air. Many of these products, however, are already shipped by sealift or barge.

Although the projected cost of a food basket in Table 15 cannot be taken as actual costs, which may be somewhat higher or lower than those shown, their basic message is indisputable. The cost of living in many of the air stage communities would increase dramatically, and the current living standard of their residents would be significantly reduced unless their income increased to the same extent as their cost of living. For most of the population, that would not be the case.

It is also critical to understand that prices in some communities currently receiving food mail would increase to levels well beyond those in the central Arctic or other remote regions not eligible for this service at present. The Baffin region and northern Quebec are the most remote parts of Canada. The distances over which food must be transported to Baffin communities ranges from 2,000 to almost 4,000 kilometres. While distances are less to northern Quebec from La Grande (which itself is 700 kilometres north of Val d'Or), the cost of serving northern Quebec communities is higher than that of serving those in the central Arctic. That situation is unlikely to change.

Price increases in the order of those suggested here - milk could cost $10 a litre and bread $7 a loaf in some communities - may well induce some people to move elsewhere. Instead of the cost of food being similar across the north - at least within each postal region - it would have become not only higher than in the south, but greatly different from one northern community to another. If it cost a family in Salluit or Ivujivik over twice as much to eat as it would in Kuujjuaq or Kuujjuarapik, people may relocate, particularly those whose income did not increase accordingly. People move for reasons unrelated to the cost of living, and did not locate in any remote community because of low food prices. Price differences of the magnitude suggested in Table 15, however, would weigh very heavily in the decision to leave or stay in remote communities by anyone wishing to eat perishable food. As stated in Chapter IV, more and more people in the north now have such tastes. The following section describes how diets, nutritional status and health are likely to change if food costs in remote communities were to increase by roughly the amounts suggested here.

Diet, Nutrition and Health

Transportation subsidies in both Saskatchewan and Newfoundland made perishable food more readily available and increased consumption of perishable foods, particularly dairy products, fruits and vegetables. Meat consumption also increased in Saskatchewan, during seasons when land foods were not readily available. Removal of the provincial subsidy in northern Saskatchewan resulted in significantly higher food costs and, therefore, reduced the availability of these foods (Joseph, 1985). Similarly, the air stage subsidy has increased the availability of perishable foods to a number of northern communities elsewhere in the country. However, the effect of the removal of the air stage subsidy on diets, nutritional status and health cannot be precisely determined,

since there are many factors which may influence food choice and availability.

Concern over the impact of the removal of the air stage subsidy on food prices, food availability and the health and nutritional status of northern native Canadians, has been expressed by the Canadian Dietetic Association in their report, "Hunger and Nutrition in Canada". This concern was echoed by health professionals, social assistance workers, and community members in each community visited by the committee and in written submissions received from native organizations, as well as by nutritionists from the Northwest Territories Department of Health.

Hunger does exist in northern Canada. Reports of children, pregnant women and families going hungry and begging for food were substantiated by territorial nutritionists, local health and social service representatives, community members as well as in written submissions. Hunger is particularly severe during the spring breakup and fall freeze-up, when people are unable to get out on the land and, in winter, for those families on social assistance. The food price survey confirms that Indian and Inuit families on social assistance or working at minimum wage are currently unable to purchase a diet which meets minimum nutrient requirements.

If one considers the escalating costs associated with the procurement of country food, the lack of sufficient cash income to sustain hunting and fishing and the concern over its safety, together with the prospect of increasing food prices or reduced availability, Indian and Inuit families currently face "hunger" as defined by the World Bank. The World Bank defines the goal of eliminating hunger as "the creation of "food security", i.e. "access by all people at all times to enough food for an active, healthy life." (World Bank, 1986). Essential to food security is "the availability of a variety of foods at a reasonable cost" and "sufficient personal income to purchase adequate foods for each household member" (Campbell, Katamay and Connolly, 1988).

Without question, the removal of the subsidy would result in a significant increase in the price of perishable foods (fruit, vegetables, dairy products, bread, fresh and frozen meat, fish and poultry) and therefore less access to a number of nutritious foods which are important sources of vitamins A, C, D and folacin as well as calcium and iron. This may aggravate problems such as iron deficiency and rickets, increase susceptibility to infectious disease (e.g. tuberculosis and AIDS) and dental decay, increase the incidence of hunger, and increase the susceptibility to cardiovascular disease, diabetes and gallbladder disease. The groups most likely to be affected are infants, young children, young pregnant women and those on social assistance. The effect will be much more severe for certain regions and communities, depending on prevailing air cargo rates.

Those on social assistance may or may not have adequate increases in assistance payments. Quebec does not currently provide higher rates of social assistance in the north where food costs are higher. Any change in this policy to reflect the impact of the subsidy reduction would be at the discretion of the provincial government. The Government of the Northwest Territories uses local food price surveys as the basis for determining food allowances in each community. However, its survey is currently modelled after the Consumer Price Index and does not necessarily ensure nutritional adequacy, particularly for those age groups with the highest nutrient needs, nor the additional needs of pregnancy and lactation. Unless there are major increases in minimum wage scales, the working poor will not have *any* protection against increased food prices. The additional stress on families in this income level may force many on to social assistance, increasing the community's level of dependence.

Since the impact of the subsidy reduction on the price of food will vary greatly from one community to another, it is impossible to generalize about the impact on people's diets, nutritional status and health. Provincial and territorial differences in social assistance and other programs complicate the matter further. Residents of about 25 communities in northern Quebec and the Baffin region of the Northwest Territories would see increases in the weekly cost of a northern food basket for a family of four ranging from about $30 to over $200. Their ability to adjust to such increases would depend on whether their incomes increase by a similar amount and on their particular financial circumstances. While a few families would have the discretionary income required to buy the same quantity of food at higher prices, most native families must already spend most of their income on food, whether purchased at the store or obtained at considerable expense from the land. Unless their incomes increase, a dramatic increase in the price of perishable food will force them to rely more heavily on canned or dry food transportable by sealift, and on country food if and when they have access to it. Their ability to cut back on other expenditures such as clothing and household supplies would in most cases be extremely limited. Under these circumstances, one could predict dietary changes which would result in increased consumption of sugar, sodium and saturated fat, with adverse consequences on health and contrary to current dietary guidelines. Although a greater variety of nutritious, less expensive foods could be made more available in the north,

encouraging their use would require further education in cooking, nutrition and literacy.

The opportunity to make healthy food choices was recognized by Health and Welfare Canada in the document, "Achieving Health for All: A Framework for Health Promotion." According to this document, the three most important challenges are reducing inequities, increasing the prevention effort and enhancing people's capacity to cope. Reductions in the air stage subsidy can only make these challenges more difficult.

Replacement of Store-bought Food With Country Food

The impact of the subsidy reduction on diets will also depend on the availability, safety and acceptability of country food as an option. Unless measures are taken to provide families with sufficient income to support a traditional lifestyle and the safety of the traditional food supply assured, the dependence on store bought foods will increase.

If one assumes that all of the meat portion of the Northern Food Basket is replaced with country food, the cost of feeding a family of four would be reduced by approximately 15 percent. However, this reduction does not acknowledge the estimated cost of obtaining country food.

Even if the meat portion of the basket were replaced by country food at no additional cost, the percentage of social assistance income required to purchase a nutritionally adequate diet in communities receiving food mail which were surveyed for this study would still range from 66 to 117 percent.

Replacement of Perishable with Non-perishable Foods

While the additional cost of the Northern Food Basket might, at first glance, be attributed to the cost of perishable foods, the price spread reflects sealift costs and storage as well as air transportation. If a food basket were constructed to meet the nutritional needs of a family of four from non-perishable foods, which could, theoretically, come by sealift, this would not significantly reduce food costs in Quebec and by only about 20 percent in the Baffin region.

The calculation of a sealift basket makes several assumptions, namely that perishable foods could be replaced by sealift items without any additional costs (to cover expansion of storage space, cost of financing, etc.), that people would eat such a diet and that ample food could be ordered to meet demand throughout the year and accommodate food preferences of a rapidly growing population. At the present time, many sealift products are sold well beyond their "best before date" (some were found at least two years beyond this date) and most retailers run out of supplies of some items in January.

Replacement of perishable foods by non-perishable alternatives shipped by sealift would eliminate a number of foods, including eggs, cheese, fluid milk, bread, fresh fruit and vegetables, fresh and frozen meat, fish and poultry. Although a nutritionally equivalent diet can be selected from non-perishable items, the ability to do so would require the availability of nutrient dense foods at a reasonable price plus consumer education. Many sealift alternatives (e.g. macaroni and cheese dinner, canned luncheon meat) tend to be lower in protein and iron and higher in sodium and fat than fresh or frozen meat, fish or poultry. It is also important to remember that a diet of canned and dried food would be very monotonous. Food satisfies psychological and emotional needs, and imposing upon northern natives a diet of canned and dried food would deny them options available to other low-income Canadians.

Family Stress and Community Life

The threat of higher food prices and possible food shortages, particularly at a time when there is such grave concern over the safety of the country food supply, could further increase the stress on the extended family system and increase the sense of vulnerability presently experienced by many native families.

This sense of frustration was expressed at all of the community meetings, especially at the meetings held in Pond Inlet, Salluit and Repulse Bay. Inuit people expressed great anxiety over rising food prices and the possibility that they would experience starvation. Both Inuit and Indian people were greatly concerned over the future of their children, their ability to feed their families adequately and to give their children basic foods that other, more affluent families in their communities could afford. Many spoke of the anxiety and emotional stress working families are now experiencing in their attempts to respond to relatives and neighbours, constantly asking for food. They also spoke of how their traditional ways have been disrupted through the "settlements" and the introduction of southern food and how, within a very short space of time, they have moved from an independent and proud culture to one dependent on a cash economy and social assistance. They spoke of how in many cases their children and grandchildren no longer wanted to eat traditional foods and blamed this change on the effect of television, the

educational system and non-native health professionals and the current fear over the safety of country food. Their anxiety seemed to go beyond individuals and families to reveal a deep concern about the future of their culture and community, similar to that identified in other native communities.

As the mayor of Pond Inlet said, "I hope everyone (on the committee) understands that we are part of Canada. We are not a threat to Canada, we want to live in Canada and appreciate that you are looking into our concerns. We hope that you are considerate of our concerns in your report."

Air Carriers

In order to provide service to air stage communities, Canada Post contracts service from various air carriers. Often, the same aircraft carries not only the parcels qualifying for the air stage subsidy but also other mail, other cargo and passengers. In some cases, such as First Air, Air Inuit and Air Creebec, Canada Post has provided a substantial share of total cargo revenue. Makivik Corporation, owned by the Inuit of northern Quebec, purchased First Air and established Air Inuit from Bradley Air Services and Austin Airways in 1990 and 1978 respectively. Air Creebec was also established by the Quebec Cree through the purchase of part of Austin Airways in 1982, and expanded into northern Ontario by acquiring part of Air Ontario in 1988. These airlines represent major investments of money received under the ***James Bay and Northern Quebec Agreement*** of 1975.

Without some form of subsidy, air service would not have developed to the extent that it has in the more remote regions of Canada. Most people could not have afforded to purchase the food and other goods transported by air in the quantities now being shipped. Some government and private sector employees may have received either the cash or cargo allowances which would have enabled them to pay the full transportation cost of perishable food, but most people would have had to rely almost exclusively on traditional food, if available, and items transportable by sealift or winter roads. Without a sizable air parcel business for Canada Post, the airlines could not have provided the public with service as frequently as they do or at the current rates which are already far higher than in southern Canada because of the small population served, the difficult climate and level of airport facilities. The airlines, therefore, have a vital interest in the maintenance of at least the current volume of parcel service. As the air stage subsidy has declined, Canada Post has attempted to avoid rate increases by reducing its costs, i.e. by rationalizing the air stage network to reduce the distances travelled and the amount of interlining and by recontracting at lower rates. Canada Post has estimated the savings of various changes made since 1987 to be about $3.5 million. Airlines have made it clear, however, that any reduction in postal revenues would result in increases in rates for other services, since there are real limits for cost or profit reduction on the part of the airlines. Residents of air stage communities, therefore, may be expected to pay for at least part of the reduction in the subsidy through increased passenger and air cargo rates, even if postal rate increases are kept to a minimum through tougher negotiations by Canada Post. Since northern residents are also the owners of some of the airlines involved, the return on their investment would also be reduced.

Economic Development

The air stage subsidy has appeared in the government's estimates and accounts in the "services to government" envelope, and for the purpose of "general government operations," using the current expenditure classification system, rather than for social or economic and regional development. However, the subsidy has both social and economic impacts. This section addresses the latter.

Air stage service has been the basis upon which a retail trade sector in remote communities, particularly in the Baffin region and northern Quebec, has been gradually built up, often in competition with the Hudson's Bay Company. Both the cooperatives and some of the independent stores in the north have received substantial assistance from federal, provincial and territorial governments. Despite this assistance, they often do not have access to the financing required to purchase a full year's inventory of non-perishable goods and to build and operate the necessary warehousing facilities. Inventory control is also much simpler if goods are shipped by air as demanded - an essential consideration when the experience, education, and training of retail management in air stage communities are often quite limited. The government's investment in economic development could be lost if these businesses could not compete because of the decline in the air stage subsidy.

Businesses other than those in the retail trade sector could also be harmed by removal of the subsidy. Higher prices for food and other goods required to operate tourism establishments, hunting camps, etc., could make it more difficult for them. On the other hand, import substitution has

been advocated and promoted by government programs. High transportation costs from the south afford some degree of protection for businesses in the north which produce goods there for local consumption, rather than sell imported goods. An air transportation subsidy is harmful to a business which uses raw products coming in by sea or winter road to manufacture a final product which is perishable and must therefore be flown in. A bakery would be an example. However, such businesses are not common in air stage communities. On balance, removal of the subsidy would probably do much more harm than good to northern businesses and jeopardize some of the progress achieved by economic development programs to date.

Government Expenditure

Since 1986/1987, the air stage subsidy has declined by $1 million per year, ostensibly reducing government expenditure by $10 million over the period since then. To some extent, expenditure on other federal programs and the effectiveness of other programs are affected by the air stage subsidy. Provincial and territorial government expenditures and programs are also affected. Although it is impossible to quantify precisely the total net effect of past and future reductions in the subsidy on federal, provincial and territorial government expenditure, the linkages and adjustment processes can be described. In some instances, the impact can be estimated with a reasonable degree of confidence. In other cases, estimation of the amounts of money involved is much more difficult and imprecise.

As in the previous sections, the approach taken here is to describe the impact of completely phasing out the air stage subsidy. No attempt is made to assess the impact of each $1 million reduction.

Isolated Post and Cargo Allowances

Federal, provincial and territorial governments provide allowances to their employees in remote communities to compensate them for the higher cost of food and certain other goods and services. Federal and territorial government employees receive a cash payment, called an Isolated Post Allowance and a Settlement Allowance, respectively. Employees of the Quebec government and regional bodies such as school boards and health commissions in Quebec receive both a cash allowance and cargo allowances which cover the air cargo or postage costs for goods purchased directly from southern suppliers.

There are approximately 1,650 federal public servants posted in air stage communities. If they benefited from the air stage subsidy to the same extent as the general population in each region, as shown in Table 2, federal public servants and their families could be expected to require about $600,000 in additional compensation to maintain their current standard of living if the air stage subsidy were eliminated. However, because the Isolated Post Allowance is calculated using a basket of goods typical of southern consumption patterns, the additional amounts to which federal public servants would be entitled are likely to exceed $600,000. Additional compensation for military personnel in air stage communities would also be required.

The impact on the total amount of isolation allowances paid to provincial and territorial public servants and employees of regional bodies such as health commissions and school boards would be greater than that on the federal government's payroll. Both the Government of the Northwest Territories and the provincial and regional governments in northern Quebec have far more employees in air stage communities than the federal government. Based on the same assumption as was made in estimating the impact on federal Isolated Post Allowances, the additional allowances payable by the territorial and Quebec governments and by regional government bodies in northern Quebec would be between $3 and $4 million. The actual cost could be significantly higher than that. The impact on the salary costs of other provincial governments, however, would not be significant.

Social Assistance and the Canada Assistance Plan

Persons on social assistance are not as fully protected as public servants from any cost-of-living increases resulting from reductions in the air stage subsidy. Benefit scales are within provincial and territorial jurisdiction. As noted earlier, some provinces provide higher levels of benefits in remote communities. However, even in jurisdictions which do make such adjustments, price increases are not necessarily matched dollar for dollar in the social assistance scales. Unless the provincial government changes its policy, there would be no increase in social assistance rates in northern Quebec where the impact of the reduction in the air stage subsidy would be greatest.

It would not be appropriate to speculate on the extent to which various provinces may adjust their social assistance scales in response to local price changes. However, if the provincial and territorial governments fully offset the losses of benefits which social assistance recipients obtain from the

air stage subsidy, the total amount of payments could increase by about $4 million. This estimate is based on the assumption that social assistance recipients benefit from the subsidy to the same extent as the general population, as shown in Table 2. This may not be the case, since persons on social assistance are able to purchase less than those with higher incomes. On the other hand, they do not have access to cargo allowances or trips to the south to purchase goods and are more dependent on goods purchased locally. As a first approximation, therefore, one could conclude that about one quarter of the subsidy would have to be diverted to social assistance payments to maintain the purchasing power of residents of remote communities who are on social assistance. Through the Canada Assistance Plan and the Department of Indian Affairs and Northern Development, the federal government could expect to fund approximately 60 percent of the $4 million in additional social assistance payments. However, the total increase in payments and the federal share would be determined by the provincial and territorial governments' response to price increases.

These calculations make no allowance for the fact that many people on modest incomes are able to survive without resorting to the safety net of last resort which the social assistance system is intended to be. With increased prices, however, more people would undoubtedly be in need of such assistance. Consequently, welfare dependency rates and the costs of supporting even more people at least partially dependent on welfare, would rise.

Health Care

Estimating the impact of the subsidy reduction on health care costs is particularly difficult, since health care expenditure is only partially explained by need or health conditions. Furthermore, nutrition is only one factor influencing health, and the effects of diet on health are more often long term rather than immediate; food prices are only one factor influencing consumption; and transportation costs are only one component of retail food prices. Nevertheless, there can be no doubt that the elimination of the air stage subsidy would put additional strain on health care budgets. The extent to which health care expenditures would increase would in part depend upon the degree of protection from rising prices which would be provided to low-income families through social assistance or other means.

Health care, like everything else in remote communities, is expensive. Health expenditures in the Northwest Territories exceed $3,000 per person, and may well be higher than that in the eastern Arctic. If health care expenditures in the Baffin region and northern Quebec were to increase by only $300 per person per year as a result of eliminating the air stage subsidy, it would cost governments approximately $6 million more.

To what extent a reduction in the subsidy would affect health care costs is impossible to estimate accurately. However, the costs of health care associated with nutrition, even in southern Canada, are high. Treating an unhealthy pregnancy costs approximately $10,000, compared with about $2,500 for a healthy one. Treating an unhealthy baby from birth to first birthday costs almost $14,000, compared with less than $700 for a healthy baby. Diabetic care in southern Ontario costs about $3,000 per year. When the higher costs of all medical procedures in the north are considered, the consequences of malnutrition in air stage communities are clearly expensive. Depending upon whether the federal, provincial, or territorial governments found alternative means of preventing an increase in malnutrition, the increased health costs resulting from eliminating the air stage subsidy could alone cancel out a large part of the "savings" achieved from reducing the subsidy.

Cost considerations are only one reason for concern about the impact of reductions in the subsidy on health. People quite naturally prefer to be healthy, rather than to be treated for diseases, even if there is a cost to maintaining good health through good nutrition. Any policy change which would have the potential of aggravating the currently unacceptable health conditions and nutritional status of northern natives must be weighed very carefully. Even if viewed only from the point of view of controlling government expenditure, a subsidy which helps to ensure a supply of affordable, nutritious food in remote communities is cost-effective "preventive medicine."

Unemployment Insurance

Accurate estimates of the impact of the subsidy reduction on Unemployment Insurance contributions and payments cannot be made. However, given the strong possibility of negative economic impacts, as described earlier, unemployment rates in some communities could be expected to increase. Some of those affected would be covered by Unemployment Insurance, and others not. The net effect on the Unemployment Insurance account could therefore be positive or negative. As in the case of health, however, any measure which would aggravate an already unacceptable situation requires a broader perspective than that of its impact on government expenditure alone.

CHAPTER VII

CONSIDERATIONS AND ALTERNATIVES

This section of the report discusses the significant policy questions related to the application and administration of the air stage subsidy which fall within the terms of reference of the subsidy review. Relevant responsibilities of the federal, provincial and territorial governments and of Canada Post as a federal Crown corporation are discussed first. Alternatives to the air stage subsidy which may achieve the same objectives are considered.

The report then turns to the key elements essential to a policy for the application of the subsidy: rate structures (both regional differences and differences among types of goods); which regions should be eligible to receive food mail; restrictions on the types of goods eligible for shipment at subsidized rates; and restrictions on the points of entry (or mailing) of food and other goods sent to air stage communities.

Finally, some of the options for monitoring the impact of the subsidy on prices, consumption and health are suggested, as well as some additional measures which could support any nutritional or health objectives that a more focussed application of the air stage subsidy may help to achieve.

Responsibilities

When the Post Office started to accept commercial shipments of food for delivery to remote communities over 20 years ago, the government considered this service to be an appropriate activity of the federal government, if not a federal obligation. Whether this service was initiated by virtue of federal responsibility for postal service, for Indians and Inuit, for health, for welfare, or for transportation has never been clear. The fact that food mail service was provided to remote communities in some provinces but not others suggests that neither the government of the day nor Canada Post has ever seen this service as an "entitlement" or part of a national or "universal" program which the federal government would provide to Canadians in all remote regions.

From time to time, some provinces and the Government of the Northwest Territories have established programs to subsidize transportation of food to remote communities. Between 1979 and 1984, the Government of Saskatchewan subsidized the transportation of perishable food to northern communities. The Government of Newfoundland and Labrador has had a similar program during the winter months for communities on the south coast of Labrador. This program was terminated with the beginning of the shipping season in 1990. Although there is no subsidy specifically to cover the air freight cost for food on the north coast of Labrador, the prices charged in the stores operated there by the provincial government do not fully cover their air transportation costs, and the stores operate at a loss. For many years, the Government of the Northwest Territories has subsidized the shipment of food to Pelly Bay, the only community on the Arctic coast which has no sealift or barge service. Neither the provinces nor the territories, therefore, have viewed the provision of a food transportation subsidy to be exclusively a federal responsibility. Provincial and territorial responsibilities in the areas of health, social assistance, and transportation clearly establish a provincial and territorial role in ensuring that their residents have access to food and other essential goods at affordable prices.

During the consultations undertaken for this review, many people expressed the view that Canada Post, as a federal Crown corporation, has a responsibility to provide postal service to Canadians in all regions at a reasonable and equitable rate, rather than penalize those who happen to live in remote areas which are costly to serve because they lack year-round surface transportation. Some of the profits made by Canada Post in more profitable regions should, in their view, be used to keep rates below the cost of providing service to higher-cost regions. However, it is Canada Post's view, supported by current federal policy, that if Canada Post is required by the government to provide a service at less than cost, the government or governments, rather than users of other postal services, should provide the necessary subsidy.

Alternatives to the Air Stage Subsidy

A subsidy to Canada Post is only one of several possible means of ensuring that residents of remote communities have regular and affordable access to food and other goods brought in by air because surface transportation is not available on a year-round basis. The subsidy is based on the premise that, by reducing transportation costs paid by merchants in remote communities or their suppliers or by consumers purchasing

by mail order, the cost of living and doing business in such communities is lower, and the standard of living higher, than would otherwise be the case. From the previous discussion, it appears that the subsidy has had such an effect, although the portion of the subsidy ultimately benefiting consumers, rather than airlines, merchants or other businesses, is difficult to establish precisely.

There are, however, several possible ways of achieving the same objective. Distributors or retail merchants could be reimbursed for some or all of their air transportation costs. Air carriers could be subsidized. The government could provide additional payments directly to some or all residents of remote communities so that they could afford to pay the full transportation cost for the goods which they consume. As far as food is concerned, the government could reallocate the air stage subsidy to subsidize local food production in remote communities, rather than the importation of food from elsewhere. All of these alternatives would effectively get Canada Post out of the food mail business. Even if Canada Post were to remain involved, some or all of the losses incurred on air stage service could be offset from the revenues or profits of its other services, rather than from a federal or provincial government subsidy.

It is highly unusual for commercial quantities of food to be shipped through the postal system. To the knowledge of the study team, the U.S. Postal Service, which ships large amounts of food to remote communities in Alaska, is the only other postal system in the world which is used for this purpose. The $80 million subsidy involved is currently being reviewed by the U.S. Postal Rate Commission.

In its report released in April 1990, the Standing Committee on Consumer and Corporate Affairs and Government Operations recommended that the government consider the replacement of postal subsidy programs with direct recipient programs. The Committee also recommended that consideration be given to the special needs of the indigenous population when formulating alternative arrangements.

It is not clear whether the Committee considered consumers, merchants or airlines to be the appropriate "direct recipients." All alternatives are considered here. Normally a direct subsidy would be preferable. However, the current inequitable and imperfect system could be improved, and for reasons discussed below, the study team has concluded that at least in the short term, improvements to the air stage subsidy are preferable to any of the alternatives.

Several factors were taken into account in considering alternatives to the air stage subsidy. These include the following:

1. whether the alternative could or should be used to discriminate between different types of goods, rather than applied equally to all types of goods;

2. whether the alternative would apply to goods over a certain size (the current limit is 30 kilograms), or to types of goods currently prohibited from the air stage system;

3. administration costs to the government, related in part to the number of potential recipients;

4. administrative costs to claimants or beneficiaries;

5. whether the alternative would provide an opportunity to introduce some form of mechanism to ensure that the intended beneficiaries of the program (i.e. residents of remote communities) are receiving the benefits;

6. whether the alternative would improve accountability by ensuring that the subsidy is not wasted on transporting spoiled goods or paid on the transportation of goods which never arrive at their intended destination;

7. the need for better auditing of public expenditure, since under the current system there is no public accounting of Canada Post's expenditure and revenue related to this service;

8. equitable treatment of different individuals, communities and regions; and

9. total program cost and benefits.

Income Supplements

A program of direct payments to residents of air stage communities would have the advantage of ensuring that all of the money reaches the intended beneficiaries. Such a program, however, is impractical. Even if a decision were made on which regions or communities should be eligible, problems of eligibility at the individual level would remain. Social assistance recipients and the working poor would be the most in need of additional income if the air stage subsidy

were removed. The federal government does not make direct payments specifically to either of these groups. The level of social assistance payments required to support a family in some of the more remote communities without the air stage subsidy would make it extremely difficult for private sector employers to survive and pay their work force adequately. Consequently, some form of wage subsidy for the private sector would also be required to match the increases in social assistance to avoid serious distortion of the labour market. Governments already compensate their employees for the higher cost of living in remote communities through cash payments or benefits (isolated post allowances, settlement allowances, cargo allowances, and so on). These would also have to be adjusted, as discussed previously.

Conceivably, the level of payments under the federal government's income security programs (Family Allowance, Child Tax Credit, Old Age Security) could be adjusted to compensate for the higher costs in remote locations, but the difficulties and implications of doing so are prohibitive. Furthermore, children and the elderly are not the only people whose cost of living would be affected by the removal of the air stage subsidy.

The most efficient way in which the federal government could directly support the income of residents in air stage communities would be through the tax system. A system of tax benefits for residents of northern and isolated areas has existed since 1987. To calculate their taxable income, taxfilers living in "prescribed areas" can deduct 20 percent of their net income. The maximum deduction is $5,400 if only one taxfiler from a particular residence claims the deduction; in other cases the maximum is $2,700. The revisions to the system of tax benefits announced by the Minister of Finance in December 1990 provide for an Intermediate Zone in which residents will receive 50 percent of the benefit levels available in the Northern Zone. Most air stage communities - and many communities which have year-round surface transportation - qualify for these benefits. Since these benefits take the form of a deduction, rather than a tax credit, they are of no benefit to low and moderate-income people who do not pay income tax.

Converting the current northern residents deduction for living in a "prescribed area" to a refundable tax credit would provide a significant income supplement to lower-income residents of these communities, in the form of an annual, lump-sum payment. However a refundable tax credit which would be the same in Pond Inlet as in Kuujjuarapik, for example, would not provide an appropriate alternative to the current air stage subsidy - especially since the implications of eliminating the subsidy vary so widely from one community to another. Only a sliding scale of tax credits, sensitive to local differences in the cost of living, would provide an equitable distribution of benefits delivered through this means as an alternative to the air stage subsidy. While such a system is technically possible without a significant administrative cost, it is unlikely that such a fundamental change to the current system of tax benefits for northern and isolated areas would be entertained. Problems addressed by the Task Force on Tax Benefits for Northern and Isolated Areas, which was established in April 1988 to deal with the boundary question related to these benefits, were only recently resolved.

Subsidies to Merchants

In order to reduce retail prices rather than support consumers' income, a subsidy could be provided either to southern distributors or to retail merchants in air stage communities to cover part or all of their air transportation costs. If paid to wholesale distributors, they would pay the air carrier the full cost of air cargo service, and submit a claim to the government for a transportation subsidy. The amount they would charge their customers could then reflect transportation costs net of any subsidy received. Alternatively, retail merchants could pay their suppliers the full cost of air cargo service, and submit a claim to the government for some or all of any amounts eligible for a subsidy paid at the retail level. Canada Post would not be involved.

Unless the subsidy were to apply to all types and sizes of goods, which is not currently the case, claimants would be required to submit documentation on the quantities of goods of various types shipped to each destination. This requirement would permit the government to subsidize different types of goods to different degrees, and to monitor consumption trends and retail margins. It would also eliminate the current requirement for the distributor to weigh each parcel separately. It may also be possible to restrict payment to goods which arrive at their intended destination in a usable condition. If the subsidy were restricted to retail merchants, some degree of retail price control would be possible. Under the Saskatchewan program, retail prices of perishable food in remote communities could not be higher than those in the distribution centre of La Ronge.

The primary disadvantage of such a system would be the substantial administrative cost. If wholesale distributors as well as outside businesses selling directly to consumers in air stage communities were eligible for the subsidy, 100 or more firms could be submitting claims which would have to be processed individually. If the subsidy were restricted to retail merchants in air stage communities, the number of claimants

would be even greater. Another disadvantage of such a system is that merchants would initially have to pay the full cost of air transportation.

Subsidies to Air Carriers

A subsidy provided to air carriers was also considered as an alternative subsidy mechanism. Air cargo rates, at least for eligible types and sizes of goods, would then be lower than they would be otherwise. "Southern" merchants would deliver the goods to eligible air staging points. The air carrier would issue an invoice showing the "regular" freight rate and the amount of subsidy for each class of goods. The invoice would be signed by both the shipper and the air carrier. The shipper would pay the air carrier the full freight rate less the subsidy. At appropriate intervals, the air carrier would forward a copy of the invoice and a claim form to the federal agency responsible for administering the subsidy. The agency would then pay the subsidy to the air carrier. Certain controls and verification procedures required for auditing purposes would be developed and carried out.

The government's administrative cost for such a system would again be substantial. At least 30 air carriers could be involved, although the number would steadily decline as funding declined. Their costs in collecting and submitting the documentation required for making claims would also be substantial - and ultimately borne by consumers in air stage communities. A more significant disadvantage of such a system, however, is that, with deregulation of air cargo rates, there is no standard or approved "regular" rate for air cargo service to a particular community which could serve as a benchmark for establishing the applicable amount of subsidy. Although air carriers must provide the public and the government with information on their rates and cannot charge rates higher than their published tariffs, air carriers and potential customers are at liberty to negotiate lower tariffs which are not subject to government scrutiny or known to other potential shippers. It would therefore be impossible to determine the appropriate amount of subsidy to be paid to the carrier for shipment of different classes of goods on behalf of its various customers, each of whom could be paying a different "regular" rate for goods not eligible for the subsidy. Nevertheless, this avenue could be pursued further if a decision were taken to bypass Canada Post as the mechanism for providing an air transportation subsidy.

Cross-subsidy within Canada Post

Cross-subsidization of air stage service through the profits or revenues from other postal services could also be considered as an alternative. Since Canada Post now makes a profit, cross-subsidization would mean that its profit would be less than would otherwise be the case, to the extent that air stage costs exceeded the postage revenues. The return on the government's investment would be reduced accordingly. Canada Post returns 40 percent of its profit to the government. If, instead of receiving a $15 million subsidy, Canada Post's profits were reduced by $15 million, the government would receive $6 million less as a return on its investment (i.e. 40 percent of $15 million). The remaining $9 million would be paid by the public when they mail letters or use other postal services, rather than when they pay their taxes.

There are several reasons why explicit payments from the government for special purposes are preferable to cross-subsidization. Under the current system, Canadians share the burden of paying for the air stage service in proportion to the amount of taxes paid. If an internal subsidy were used, the burden would be distributed according to the extent to which they purchase postal services. Furthermore, Canada Post operates in a competitive market in which its competitors are not required to provide service to regions where no profit could be made. Although it may be reasonable to require Canada Post to provide air stage service, this service should not jeopardize Canada Post's competitive position in the parcel business. In addition, by providing payments to Canada Post for special purposes, a minister or department other than the Minister responsible for Canada Post can administer the subsidy and provide direction to the corporation on its application, although this has not yet happened in the case of the air stage subsidy.

Food Production Subsidies

The final alternative considered was to reallocate the air stage subsidy to the production of food and other goods in air stage communities, instead of the transportation of goods produced elsewhere. Subsidies which support production in remote communities, rather than consumption of imports, are worthy of further consideration. Some of the current economic development programs support the production of food and other goods from local natural resources or raw materials imported by surface transportation. However, most of the goods imported by the air stage system could never be produced in the isolated regions concerned, even if their production were heavily subsidized. In some cases, suitable alternatives could be produced locally, and any such opportunities should be pursued. It would be unreasonable, however, to reallocate any significant portion of the current air stage subsidy for this purpose.

Conclusion

The current system of subsidizing air transportation through a subsidy to Canada Post is imperfect. The subsidy may not be entirely passed on to consumers in air stage communities. There are inequities in the application of the subsidy, administrative deficiencies, and other problems discussed earlier. However, there are minimal administrative costs both to the government and to Canada Post Corporation. None of the money is wasted on a costly bureaucracy making payments to beneficiaries. It is the study team's conclusion that a concerted effort to rationalize and improve the administration of the current subsidy will serve the public interest better than any of the alternatives, at least for the next while. The following sections, therefore, discuss the most important considerations for improving the management of the current subsidy.

Rate Structure

The rate structure for air stage service is the primary factor affecting the distribution of benefits from the subsidy. The amount of postage paid is reflected in both the retail price of goods purchased by residents of air stage communities and in the extent to which air and surface transportation are used for non-perishable goods for which there is a choice of possible modes of transportation. This section considers the rate structure both from a regional point of view and in terms of differences among the types of goods shipped.

Regional Differences

The current rate structure for air stage service has developed with little regard for regional differences either in the cost of providing service, the ability of people in different regions to pay for service, or the existence of other extenuating circumstances or programs which could justify a higher rate in one region than another. Any or all of these considerations could be relevant to the policy decisions involved in establishing a rate structure which would support the public policy objectives of the subsidy.

To some extent, the current rate structure reflects the principle that rates should not be based strictly on costs. Canada Post's costs in serving Grise Fiord or Pond Inlet would clearly be much greater than the cost of serving Iqaluit or Sanikiluaq. However, the postal rate for each of these communities is the same because all are in the Northwest Territories. As soon as one crosses a provincial or territorial boundary, or from one postal code zone to another, rates change, regardless of differences in the cost of providing service. The rate for communities on the south side of Hudson Strait is less than one third of that for communities on the north side, with the only apparent reason being the first letter of their postal code. Postal codes are a fine system for sorting the mail. However, their legitimacy as a means of effectively allocating the air stage subsidy through the rate structure is highly questionable.

Whatever the amount of subsidy provided in the future to Canada Post for air stage service, Canadian taxpayers and the residents of air stage communities could rightly expect a more equitable treatment of different regions than is currently the case. "Equitable" treatment could mean that Canada Post would recover from postage a similar share of its costs of providing service to different regions. However, by operating under this principle, the drawing of regional boundaries becomes a highly sensitive and important issue. For example, should regional boundaries for the purposes of setting rates be based only on provincial and territorial boundaries, or should a distinction be made between communities in different parts of the same province, even if the first letter of their postal code is the same? Should residents of the most remote part of northern Quebec, inhabited mainly by Inuit, pay the same or a higher rate than the James Bay Cree communities which are much less costly to serve? Should the northern Quebec rates be higher than those to northern Ontario, which has been the case since 1987?

One option which would effectively remove all the inequities in the current rate structure and avoid the need for drawing sensitive boundary lines would be to establish a single ***minimum*** rate for all air stage destinations, applicable for goods mailed in the nearest staging point. However, the rate for each destination would still vary according to point of origin, to reflect differences in the cost of surface transportation from the point of mailing to the air staging point. One would not expect to mail a parcel from Vancouver to northern Quebec, for example, for the same rate as from Val d'Or.

The principle behind such a rate structure would be to allocate the subsidy in such a way as to even out prices across all the truly remote regions and communities across Canada, regardless of political boundaries. The more remote communities with the highest costs of air transportation would receive more of the subsidy than the less remote communities, precisely because the need for a subsidy is greater in the most remote communities, if their retail prices are to be similar to those in less remote communities. There would, however, still be community differences in retail prices

related to the degree of competition and for reasons unrelated to postage rates.

Such a fundamental change in the allocation of the subsidy would be clearly inequitable if there were any significant differences in the circumstances facing residents of air stage communities in different regions. For example, if the Northwest Territories clearly had a higher level of public services than the remote parts of the provinces, or had other federal or territorial programs which compensated in some way for the higher cost of living attributable to the higher postal rate, then there may be some justification for continuing to charge three times as much for service to the territories. However, the study team found no convincing evidence that regional differences in other federal programs or economic circumstances would warrant any great difference in the postal rates or services which the residents of various regions could legitimately expect to receive. A uniform rate structure as described above would therefore appear to be the most equitable means of allocating the subsidy.

Types of Goods

The second policy consideration related to the allocation of the subsidy is whether all types of goods should be subsidized equally. With the last rate increase, a small distinction was made between the rates for food and those for all other goods mailed to northern Quebec and the Baffin region of the Northwest Territories. Because the rate increases announced in October 1989 caused particular concern about the impact on food prices, all of the savings identified in subsequent consultations were applied to reduce the rates for food and medicine shipments.

During the consultations undertaken more recently, a concerted effort was made to determine if there was a consensus about whether any distinction should be made among different types of goods in terms of how much their transportation cost should be subsidized. This question posed problems for respondents, in part because of the difficulty in explaining how a rate structure differentiated according to types of goods may affect their price, and in part because of the hard choices involved for people already living at the margin. A majority of those consulted felt that food, particularly perishable food, should be favoured. Others, however, felt that if rate changes resulted in cheaper food but more expensive clothing, household goods, or hunting supplies, it would make no difference to their overall standard of living. In their words, they did not wish to eat cheap food but go naked. Some stressed that all the goods they consumed were necessities.

A reasonable case can be made for favouring perishable food over non-perishable food and non-food items. Air transportation is the only means of getting perishable food into air stage communities for much if not all of the year. With minor exceptions, a year's supply of all other goods can be brought in by surface transportation if financing is available and warehousing facilities exist. Even with the best of planning, shortages of non-perishable food and other goods will occur from time to time, and there will be some need for air transportation of such goods. However, when public funds are scarce, it would seem reasonable to discourage the unnecessary use of air transportation for non-perishable items in order that rates for nutritious, perishable food can be as low as possible.

The experience since the last rate increase has demonstrated that both distributors and Canada Post can work with a two-tier rate structure which distinguishes between food and medicine on one hand, and all other goods. A distinction between perishable and non-perishable food, however, would be less clear-cut. Postal officials, distributors and retailers would have to be provided with a simple but comprehensive system of distinguishing between the two categories if they were to be applied consistently. The distinction could be made by qualified professionals on the basis of scientific data and standards relevant to the shelf life of different forms and types of food.

If there appeared to be a reasonable degree of consensus that perishable food should receive the most favourable rate, the possibility of an additional distinction between the rates for non-perishable food and non-food items could also be considered. No such distinction could be made on the grounds of perishability. Nor is it clear that a higher rate should be paid for non-food items because they are less essential. Both necessities and luxuries are found in both categories. Any attempt to distinguish between truly essential goods (whether food or not) and "non-essentials" would be a complicated and controversial process which could intrude too far into the domain best left to the market place and the decisions of individual consumers.

Various options could be considered. First, if the subsidy were applied only to perishable food, as was the case for the transportation subsidies provided to Labrador and northern Saskatchewan by their provincial governments, the rate for these items could be reduced. Alternatively, the subsidy could be applied to both perishable and non-perishable food - perhaps with a distinction between the two - but not to anything other than food. In the truly remote parts of Canada, however, such restrictions may be excessive. There may be

good reason to adopt a rate structure which discourages the use of subsidized air transportation for non-perishable items. However, through no fault of the community residents, shortages of both essential and non-essential non-perishable items will inevitably occur before seasonal surface transportation is possible. To state that none of the air stage subsidy should be used to cover part of the air transportation cost involved in these instances may not seem reasonable. Furthermore, with the current restriction of food mail to four specific regions, the regions not eligible for food mail service would no longer benefit at all from the subsidy if either of these options were chosen.

A final option recommended to the study team was to restrict the subsidy to perishable food and "seasonal" dry goods such as clothing and some types of housewares, with a lower rate being applied to perishable food. However, community residents did not seem to be so concerned about clothing fashions that special consideration should be given to such goods. In any case, transportation is such a small component of the retail price of clothing, which has a high value per unit weight, that a transportation subsidy would have little effect on clothing prices in remote communities.

Value per unit weight, on the other hand, provides an additional argument in favour of having a lower rate for food than non-food items. The retail price of a food basket in Canada averages about $3.00 per kilogram. Consequently, the additional cost involved in getting food into a remote community adds substantially to the final cost of the basket. For some food items, air transportation represents well over half their cost in a remote community. Many non-food items, on the other hand, have a higher value per unit weight, and their cost in remote communities is therefore less affected by transportation costs. There are, however, exceptions, such as household cleaners and personal care items whose value per unit weight is similar to that of food. Consequently, when such goods are mailed to air stage communities, their price will also be influenced by any decision about air stage rates and the application of the subsidy.

If a decision were taken to adopt the uniform rate structure described above, one could expect significant changes in the prices and consumption of goods in different regions and in the modes of transportation used. Rates would decline substantially in the Baffin region and increase elsewhere. In some communities which are not too distant from air staging points, postal rates would rise above the commercial air cargo rates. These communities would effectively drop off the Canada Post system as far as air stage parcel service is concerned, although Canada Post would continue to provide the service to anyone wishing to use it rather than deal directly with the air carriers.

Because rate changes would presumably result in retail price changes which in turn would influence consumption, it is impossible to arrive at a uniform rate structure which one knows for certain would enable Canada Post to exactly balance its revenues and costs. However, based on reasonable assumptions, it would take almost the entire subsidy of $15 million if a uniform rate of 65 cents per kilogram for perishable food were applied to the four regions that currently receive food mail. This would leave almost no subsidy for non-perishable food or for the extension of food mail service to other regions. If non-perishable food were accepted, the rate may have to be about $2.00 per kilogram in order to hold the perishable food rate to 65 cents per kilogram, even if the entire subsidy were used for food shipped to the four regions that currently receive this service.

Food Mail Regions

The current restriction of food mail service to four specific regions appears to have come about through a series of ad hoc decisions by Canada Post and its predecessor, in which concerns for cost containment and lobbying played a more prominent role than any other policy considerations. For the same reasons that a uniform rate structure would make the allocation of the subsidy more equitable, all air stage communities and regions of Canada would seem to have an equally strong case for the provision of subsidized food mail service, provided that they are truly remote. With a uniform rate structure and the current level of subsidy, an expansion of food mail to other regions would mean that the rates would have to be substantially higher than they would be if food mail were limited to four regions. With the current level of subsidy, the same service cannot be provided to all remote regions without a large increase in rates. The exact rate required cannot be determined. However, if only perishable food were allowed on the system, the current $15 million subsidy might be sufficient to provide service to all regions for a rate in the order of 85 cents per kilogram. Some communities that currently receive food mail would drop off the system because air cargo rates would be less than the uniform postal rate.

Expanding the subsidy to other remote communities in the country would not make sense if the subsidy is going to continue to decline. Progressively higher postal rates would mean that air cargo rates would become competitive in a very short period of time and these communities would soon be

served by means other than Canada Post. If the policy were to change, however, and the subsidy were to remain at a fixed or demand-driven level, there appears to be little justification for excluding any truly high-cost, remote community from the service.

Restricted Goods

Commercial shipments of soda pop, chips, and some other snack foods are not accepted on the air stage network, even for delivery to communities which are eligible to receive food mail. Tobacco products and alcoholic beverages were also excluded from this service on January 31, 1990. Further consideration has been given to the list of goods which could be restricted in order to keep the rate for those goods that are accepted as low as possible.

There is considerable diversity of views on which, if any, kinds of so-called "junk food" should be eligible for the subsidy, and the current restriction on "chips" has not been interpreted consistently. The decision to eliminate chips was motivated more by the concern about the density of the product, rather than nutritional considerations. Pop, on the other hand, is heavy and is consumed in such large quantities that accepting it on the air stage system would result in a large increase in the rates which would have to be charged for all other goods unless the subsidy were increased accordingly.

No one would question the right of people in remote communities to consume "junk food," tobacco and alcohol in accordance with the relevant regulations on these products. The use of public funds to subsidize the transportation of such products, however, is quite a different matter. The fact that there are serious health problems in most air stage communities which are attributable in part to poor diets, smoking and drinking adds weight to the arguments against accepting these products on the air stage system. Although price is only one factor influencing consumption, it would be counterproductive to use public funds to lower the price of products whose consumption the health authorities are trying to discourage through other publicly funded programs. Instead, the air stage subsidy could be managed in a way which would support rather than detract from health and nutrition programs.

Public opinion on the question of eliminating certain types of goods from the air stage system is not unanimous. Some have argued that items as different as cigarettes and chocolate Easter bunnies should qualify for the subsidy. The decisions made last January to eliminate certain products, however, seem to have fairly broad support. There is a strong case for continuing the restriction against tobacco and alcohol and for clarifying and expanding the list of food products with little or no nutritional value which would not be accepted on the air stage system. Such a list could be developed on clear, nutritional grounds, and a final decision about specific items made after consultation with affected interest groups. The list of foods which will be subject to the Goods and Services Tax could provide a starting point for developing a list of those which would not be accepted on the air stage system. In fact, an identical list for GST and air stage purposes would make things easier for merchants. However, some variation may be warranted on nutritional grounds.

Points of Entry

Under the current policy, goods other than food can be mailed anywhere in Canada for delivery to air stage offices. Such goods are normally moved by truck or rail to the appropriate staging point by a company under contract with Canada Post. A higher rate is paid when goods are mailed from a postal zone other than that of the relevant staging point. For example, the rate for a 10-kilogram parcel mailed from Val d'Or to northern Quebec is $6.70. For a similar parcel mailed from Toronto, the rate is $7.75. The additional postage revenue is for surface transportation from the point of mailing to the air staging point. The rate to the Northwest Territories, on the other hand, is the same, regardless of the point of mailing: $21.55 for a 10-kilogram parcel other than food or medicine.

Food can be mailed only at designated "food entry points." The distributor must arrange and pay for transportation from his place of business to the food entry point. Some merchants questioned whether the restriction of food to designated entry points should be maintained, since it reduces competition. On the other hand, this restriction minimizes Canada Post's administrative costs and provides a more stable climate for investment by distributors. Consequently, the current restriction may be in the best interests of everyone concerned. However, a decision to extend food mail service to additional communities would require the designation of additional food entry points, such as Yellowknife, Inuvik and Goose Bay.

Impact of a Uniform Rate Structure Favouring Perishable Food

This section of the report describes the probable impact of instituting a rate structure which would provide service to all regions at the same rate, but with a more favourable rate being given to perishable food. It also assumes some extension and clarification of the list of foods and beverages of little nutritional value which would not be accepted on the air stage system.

First, with a rate for perishable food in the range of 65 to 85 cents per kilogram, a few more communities, particularly in northern Ontario and Quebec, may switch to commercial air cargo service if a lower rate could be obtained by dealing directly with the airlines than from Canada Post. Since the current postage rate in northern Ontario is about 52 cents per kilogram, there would be little impact on food prices there. Food prices in northern Quebec should also remain essentially the same, provided that most non-perishable items are sent on the sealift and the cooperatives and independent stores can manage the transition. The most noticeable change would be in the Baffin region and, if food mail service were extended, in other air stage communities in the Northwest Territories. Prices of perishable food there should decline substantially to approximately the current level in northern Quebec. The annual cost of a thrifty, nutritious diet for a family of four in the Northwest Territories could be reduced by perhaps $2,500.

The impact of such a food price reduction on residents of the Baffin region, and potentially in the most remote communities elsewhere in the Northwest Territories, should be significant. The territorial government's response to such a change, however, would be a critical consideration in determining who would benefit from this change. Since the cost of living would be reduced, the settlement allowances paid to territorial government employees could be reduced with no net change in their financial situation. The same would apply to federal government employees. Both groups, however, could expect a better supply of perishable food at much lower prices. Employees whose income is not indexed to the local cost of living and self-employed persons should see a real increase in their purchasing power and standard of living. On the other hand, with the current policy of adjusting social assistance payments to local differences in food prices, people on welfare would see their cheques reduced. The territorial government could, however, decide not to reduce social assistance benefits in order to ensure that people relying on social assistance could afford a nutritious diet.

People's diets in the Northwest Territories could be expected to respond to price changes of this magnitude. Consumption of perishable, nutritious, store-bought food should increase, though not to the levels common in the south. Because of cultural preferences, country food consumption should continue as long as the resources are managed properly and the problems with contaminants do not destroy this important source of food. To the extent that they rely on store-bought food, however, they would be much more likely to choose nutritious foods if they were more reasonably priced. With better nutrition, people's health should improve, health care costs should be reduced, and children's school performance would be better, which would in turn brighten their economic prospects.

There could, however, also be some negative consequences of such a policy. The prospects for developing a northern food processing industry aimed at import substitution could be reduced, since the current high air transportation and postage rates afford some degree of protection for local businesses catering to a domestic market. A decision to reduce the postage rates for the Northwest Territories, therefore, would have to have the support of northern residents who had carefully weighed the benefits and risks involved.

By diverting most non-perishable food and dry goods back to the sealift, a rate structure favouring perishable food could also reduce Air Inuit's volume of business in northern Quebec. The company may therefore charge Canada Post a higher rate per kilogram for the remaining perishable food business. On the other hand, Air Inuit's parent company, Makivik Corporation, has recently acquired First Air which serves the Northwest Territories. First Air's business would presumably increase. It would therefore be highly speculative at this stage to suggest the net financial impact on Makivik's owners, the Inuit of northern Quebec.

Any radical departure from the current rate structure may cause some temporary adjustment problems. However, those adjustments, if carried out according to a clear and enduring federal policy with respect to this service and with the assistance of appropriate government programs if necessary, are likely to be much less painful than the current situation of uncertainty and continual and unilateral change in the conditions under which Canada Post's service is provided. Investors and consumers will be able to plan with greater confidence, once all the important policy decisions required for the management of the air stage subsidy are taken and announced.

Administration of the Air Stage Subsidy

currently the only minister with the authority to formally advise the Corporation on how the air stage subsidy is to be applied. Its application is implicit in the establishment of a rate structure and other conditions specified in the agreements between Canada Post and its commercial air stage customers. Policy decisions with respect to the amount and application of the subsidy, however, have important implications not only for Canada Post but also for airlines, for wholesale and retail businesses, for the diets, nutritional and health status and overall standard of living residents of air stage communities, and for the operation and effectiveness of programs administered by various federal, provincial and territorial governments. Although the Minister responsible for Canada Post Corporation has always had another departmental portfolio, the associated department has changed frequently and has not always been a department which would be a reasonable choice for administering the air stage subsidy. However, a minister and department other than the Minister responsible for Canada Post Corporation could administer the subsidy and be authorized to provide formal policy direction to Canada Post. This change would relieve the Corporation of the responsibility for making important social and economic policy decisions best made by ministers with responsibility for the intended beneficiaries of the subsidy, rather than for the Crown corporation through which the program is delivered.

Several federal departments and agencies could be considered as appropriate centres of responsibility for the subsidy. Possible choices include the National Transportation Agency of Canada or Transport Canada because the subsidy is really an air transportation subsidy which is currently delivered through Canada Post; Health and Welfare Canada because the subsidy is important for both health and welfare; and the Department of Indian Affairs and Northern Development because most, though not all, of the residents of air stage communities are native people or in the territories. The choice of department is perhaps less important than ensuring that appropriate consultation with all affected departments and interest groups is carried out on an ongoing basis by any department which may be given the formal responsibility for the subsidy.

Monitoring Program

Whatever decision is taken about the level and application of the air stage subsidy, food prices, including the cost of a nutritious food basket, should be monitored initially for a period of three years. The Northern Food Basket constructed for this study could be used for this purpose. Food consumption patterns, shipments of perishable and non-perishable goods, nutrition and health indicators should also be monitored to evaluate the effect of the policy on health and nutritional status. Although it would not be possible or necessary to monitor all of these changes in all communities, this kind of information for selected communities would enable the government to make informed decisions about the subsidy or possible alternatives when the issue is reviewed periodically.

Northern Nutrition Education Program

As Canadian and American nutrition education programs have demonstrated, nutrition training assists low-income families to enhance their coping skills and become more self-sufficient and leads to improved health, lower health costs and less dependence on social assistance. Programs which develop skills in food production, marketing and processing would also provide new business opportunities and increase economic development and regional self-sufficiency.

Northern Nutrition Policy

If health and nutritional status are to be improved, northerners must have assured access to safe, nutritious, personally acceptable food at a reasonable cost. Numerous government programs, policies and initiatives have an impact on the availability of a nutritious diet and thereby ultimately affect health and well-being. Since "food security" embraces issues of income, education, personal rights, transportation, food quality and accessibility, the creation of food security for northern Canadians requires attention to each of the interdependent systems.

If northerners are going to reduce their dependence on social assistance and reassume control over their future, it is vital that health and nutrition policies take a broader perspective and examine how each of these interdependent systems may contribute to individual and community well-being. Adequate nutrition is essential to health, and only with improved

health can we expect to reduce health care expenditures and promote development consistent with native values.

The establishment of a Northern Nutrition Council, with full participation of native people at the regional level, would help to ensure the development and implementation of policies and programs which would promote access to an affordable, nutritious and personally acceptable diet by northern Canadians. However, to be effective, such a Council would require the authority and finances to develop policy, monitor health and food prices and conduct the necessary research to explore appropriate alternatives and educational methods.

CHAPTER VIII

CONCLUSION

By reducing merchants' transportation costs, the air stage subsidy has been an effective means of keeping the prices of food and other goods in remote communities lower than they would otherwise be. Since the postage rate has been the same for each community within a particular postal zone, there are only small food price differences among the air stage communities within any particular region where food mail service is provided. On the other hand, the much higher postage rates applied to the Baffin region of the Northwest Territories are reflected in food prices which are significantly and consistently higher than in northern Ontario or Quebec. Perishable food in the Baffin region costs about three times as much as in the south. The subsidy seems to be largely passed on to consumers by both the airlines and merchants. However, both of these interests have also benefited from the increased volume of business which has been generated by the subsidy.

Despite the air stage subsidy, there are serious inequities in the cost of and access to nutritious food in remote communities. This situation contributes to malnutrition and poor health, particularly among those at high nutritional risk. Further reductions in the air stage subsidy are likely to exacerbate these problems. Most, if not all, of the savings from further reductions in the subsidy will be illusory, since the costs of social assistance, health care, and isolated post allowances for government employees will escalate.

Several alternatives to the air stage subsidy were considered. Subsidies to air carriers, wholesalers, retailers, and consumers (whether as social assistance recipients or taxfilers), and cross-subsidization within Canada Post could achieve similar objectives, but with greatly increased administrative costs and, in some cases, adverse side effects. While the air stage subsidy may be the most efficient and effective mechanism for ensuring universal access to affordable, nutritious food, significant improvements could be made in the allocation and administration of the current subsidy.

The five most critical policy questions which must be resolved are as follows:

1. the amount of subsidy to be provided;

2. which communities and regions should qualify for subsidized air stage service, and for food mail service in particular;

3. what rate structure should be applied in different regions;

4. what differences, if any, should there be in the rate structure for different types of goods; and

5. which, if any, types of goods should not be accepted at all on the air stage system.

The purpose of this report was not to make public recommendations concerning the amount of subsidy, but rather to reach conclusions about the impact of declines in the subsidy. Such impacts will clearly be the greatest in areas which currently benefit most from the subsidy, and those which are the most remote and costly to serve. Fresh milk, fruit and vegetables at today's prices are a luxury in remote communities, particularly for low-income people. If these communities were expected to bear the full cost of air cargo for perishable food, most of their residents would not be able to afford such items on their current income. They would have to rely on non-perishable food, which can come in by surface transportation, and on traditional or "country" food. Only those fortunate enough to have employers which provide cargo allowances or fully compensatory isolation allowances would be able to purchase perishable food. At this time, there are serious concerns about contaminants and parasites in many of the important sources of country food, and the resource supply varies greatly from one community to another and from one season to another. Until these problems are addressed, there will be continued dependence on imported food.

One of the consequences of the rate structure which prevailed in northern Quebec until recently was that merchants have come to rely on air stage service not only for perishable food but also for large quantities of non-perishable food, household supplies, clothing, hardware, and other dry goods -virtually everything that is of a size and type that can be sent through the mail. The latest increase in postage rates has restored an incentive to use marine service for such items. Further rate adjustments could be made to ensure that most, if not all, of the subsidy is allocated to perishable food for which no alternative to air transportation exists.

Making food mail service available to all remote communities which do not have year-round surface transportation, and

applying the same rate to all communities, without regard to political boundaries, would distribute the subsidy more equitably. If the current subsidy were applied primarily to perishable food, the rate which Canada Post would have to charge for shipping perishables would not likely have to be over 85 cents per kilogram, although no firm commitment could be made to any specific rate at this stage. Communities which have air cargo service for less than the postage rate would make little or no use of Canada Post's commercial air stage service. Most of the subsidy would then be applied to nutritious perishable food in Quebec, Labrador, and the Northwest Territories, although the most remote communities in the other provinces might obtain some benefit.

Clarification and extension of the list of goods currently restricted from the system (pop, chips, tobacco and alcohol) could make more of the subsidy available for nutritious, perishable food. Based on the consultations undertaken for this review, a more focussed application of the subsidy could be expected to be widely supported in the affected communities. Few taxpayers would resent their money being spent to ensure that Canadians in all remote communities can afford a thrifty, nutritious diet which includes a reasonable quantity of perishables. There would understandably be less justification for using scarce public funds to subsidize the transportation of "junk food," alcohol, tobacco or non-perishable goods which can be shipped more efficiently by surface transportation.

If a significant change in the application of the subsidy were to be made, it would be essential to give the affected parties adequate notification. Merchants and communities could adjust to a new and more rational system. However, it takes both time and funds to plan community resupply, build and operate warehouse space, and arrange financing.

Applying more of the subsidy to nutritious perishable food could help to reduce some of the nutritional problems in remote communities and reduce public expenditure in treating disease. Food prices, however, are only one factor influencing food consumption. Education is equally important. If the air stage subsidy were applied so that the price structure would support the objectives of health and nutrition education programs, the latter would undoubtedly be more effective than they have been in the past.

Administrative responsibility for the air stage subsidy is a secondary question. Residents of remote communities and other parties with an interest in the subsidy may care less about which minister is responsible for the subsidy than about the amount of funding and how it is applied. Nevertheless, new arrangements for its administration would ensure that the subsidy receives attention and monitoring on an ongoing basis by an agency other than Canada Post. The administering department could also consult and provide information to the affected parties whenever appropriate. Accountability to Parliament and Canadian taxpayers would also be improved.

Air stage service has been provided to remote communities for over 20 years. Over this period, hundreds of millions of dollars have been spent to subsidize this service which has become especially important to communities which receive food by mail. Although the Department of Indian Affairs and Northern Development has never been responsible for the service or subsidy, it was appropriate for the department to undertake this first comprehensive review of the subsidy, since most of the residents of the affected communities are native people or northerners. The issues, however, are complex and involve the interests of many federal departments, provincial and territorial governments, the private sector and consumers. No change to the current policy would have been advisable before careful consideration of all the impacts and interests at stake. This report is an important first step in that process.

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APPENDIX 1

COMMERCIAL NORTHERN AIR STAGE SUBSIDY REVIEW

Terms of Reference

The Department of Indian Affairs and Northern Development, with the assistance of other federal departments and agencies and Canada Post Corporation, is undertaking a review of the impact of the declining annual subsidy to the commercial northern air stage network provided by the government to Canada Post.

The study is intended to provide the government with a thorough understanding of the financial, economic, and social impact of the decline, and to provide a basis for guidance regarding the application of the subsidy, particularly as it affects essential grocery items.

The following impacts and issues will be examined.

. the impact of the subsidy decline on:

- wholesale and retail prices
- airlines
- diet, nutrition and health
- Canada Post's commercial northern air stage network
- use of the sealift
- wholesale and retail merchants
- the economy of air stage communities and southern staging points
- federal, provincial, territorial and local government finance
- other government policies and programs

. rate structure by:

- origin/destination
- types of goods

. restrictions on the kinds of goods permitted on the air stage system

. alternatives to the subsidy

. administration of the subsidy.

The study team will undertake consultations with residents of northern communities, merchants, airlines, native, business and consumers' organizations, provincial and territorial governments and other individuals and organizations whose interests are affected by the northern air parcel subsidy.

APPENDIX 2

COMMUNITY CONSULTATIONS

As part of the subsidy review, extensive consultations were held with air stage communities. Food price surveys were conducted at the same time. The following map shows the location of these communities and others where either a price survey was conducted or consultations with affected interest groups occurred.

APPENDIX 3
SUBMISSIONS RECEIVED

The following list includes all written submissions on the air stage subsidy presented during the consultations undertaken by Canada Post Corporation and the Department of Indian Affairs and Northern Development in December 1989, and submissions made to the study team conducting the subsidy review announced in January 1990. Relevant briefs presented to the Standing Committee on Consumer and Corporate Affairs and Government Operations are also listed.

Written Submissions to Canada Post and DIAND, December 1989

Arctic Co-operatives Limited
Air Inuit (1985) Ltd.
Baffin Regional Chamber of Commerce
Baffin Regional Council
Réginald Bélair, MP
Canadian Airlines International Limited
La Fédération des Coopératives du Nouveau-Québec
First Air
Government of the Northwest Territories
- Department of Economic Development and Tourism
- Department of Government Services

High Arctic Enterprises, Iqaluit, N.W.T.
Kativik Regional Development Council and Kativik Regional Government
Makivik Corporation
Municipality of Broughton Island, N.W.T.
Northern Stores Inc.

Written Submissions to the Air Stage Subsidy Review

Baffin Region Inuit Association
Clyde River Health Committee, Clyde River, N.W.T.
Community Council of Makkovik, Labrador
Community Council of Rigolet, Labrador
Corporation of the Northern Village of Quartaq, Quebec
Daphne Fudge, Postville, Labrador
Hamlet of Grise Fiord, N.W.T.
Labrador Inuit Association
Labrador Inuit Health Commission
Makivik Corporation
Newfoundland Dietetic Association
The North West Company Inc.
Richard Rich, Rigolet, Labrador
Sandy's Corner Store, Poste de la Baleine, Quebec
Shepperd's Store, Postville, Labrador
Bob Skelly, MP and Len Taylor, MP
J. Robert Walsh and students of Ataguttaaluk School, Igloolik, N.W.T.
Garfield Warren, M.H.A., Torngat Mountains District, Labrador
Herman and Dorman Webb, Nain, Labrador
Windigo Tribal Council

Briefs Presented to the Standing Committee on Consumer and Corporate Affairs and Government Operations

Grand Council of the Crees (of Quebec)/Cree Regional Authority
Joint Submission of:
- Canadian Arctic Cooperative Federation Limited
- Kativik Regional Development Council
- Kativik Regional Government
- La Fédération des Coopératives du Nouveau-Québec
- Makivik Corporation

APPENDIX 4

TABLES

1. Regional Distribution of Air Stage Parcel Service, 1988-1989
2. Regional Distribution of Postage Revenues and Air Transportation Costs for Air Stage Parcel Service, 1988-1989
3. Air Cargo Rates and Service to Selected Air Stage Communities, 1990
4. Surface Transportation to Air Stage Communities
5. Number and Population of Air Stage Communities by Region, 1986
6. Population of Air Stage Communities by Region, 1981-1989
7. Employment in Air Stage Communities by Region, 1986
8. Income in Air Stage Communities by Region, 1985
9. Total Income of Unemployed Employable Social Assistance Recipients, August 1990
10. Social Assistance Beneficiaries and Payments in Air Stage Communities, 1988-1989 Fiscal Year
11. Northern Food Basket: Weekly Quantities Required for a Family of Four
12. Components of Cost of Thrifty, Nutritious Northern Food Basket for a Family of Four for One Week, 1990
13. Prices of Selected Food and Grocery Items in Selected Northern Communities
14. Feeding a Family of Four on Social Assistance or Minimum Wage
15. Postage and Air Cargo Costs for Perishable Items in the Northern Food Basket in Selected Air Stage Communities, 1990

Table 1

Regional Distribution of Air Stage Parcel Service, 1988-1989

Region	PERISHABLE FOOD		NON-PERISHABLE FOOD[1]		OTHER GOODS		TOTAL		
	tonnes	Kg per capita	tonnes	Kg per capita	tonnes	Kg per capita	tonnes	Kg per capita	%
Northwest Territories:									
Baffin	883	87	249	24	348	35	1,480	145	9.4
Keewatin	1	-	-	-	212	40	213	41	1.4
Kitikmeot	1	-	-	-	196	51	196	51	1.2
Inuvik[2]	2	-	-	-	355	71	357	71	2.3
Fort Smith[2]	-	-	-	-	26	24	26	24	0.2
Quebec:									
James Bay and Northern Quebec	2,670	262	2,562	251	934	92	6,166	603	39.2
North Shore[2]	2	-	32	4	536	74	569	74	3.6
Labrador	Data not available by types of goods						1,206	80	7.7
Northern Ontario[2]	2,844	204	1,033	74	680	45	4,560	354	29.0
Manitoba	-	-	-	-	88	7	88	7	0.6
Saskatchewan	109	38	23	8	158	55	290	100	1.8
British Columbia	Data not available by types of goods						563	n.a.	3.6
TOTAL	**6,512**		**3,902**		**3,533**		**15,714**		**100.0**

[1] An unknown quantity of non-food grocery items is included in the "non-perishable food" category.

[2] Figures for tonnes in these regions include some goods shipped to communities which are not air stage offices. In some cases, these are goods shipped from air stage communities to or through staging points. The per capita figures are based only on the volumes shipped to air stage communities and the population of such communities.

Source: Canada Post Corporation

Table 2

Regional Distribution of Postage Revenues and Air Transportation Costs for Air Stage Parcel Service, 1988-1989

Region	AIR TRANSPORTATION COST [1]		POSTAGE REVENUE			SUBSIDY REQUIREMENT		
	$000	$ per kg	$000	$ per kg	% of cost	$000	$ per kg	$ per capita
Northwest Territories								
Baffin	6,164	4.16	2,545	1.72	41	3,619	2.44	356
Keewatin	267	1.25	382	1.79	143	(115)	(.54)	(22)
Kitikmeot	349	1.78	322	1.64	92	26	.14	7
Inuvik	1,419	3.97	588	1.65	41	831	2.33	170
Fort Smith	93	3.54	46	1.73	49	48	1.80	46
Quebec								
James Bay and Northern Quebec	13,289	2.15	3,052	.49	23	10,238	1.66	1,003
North Shore	822	1.44	322	.57	39	500	.88	65
Labrador	1,323	1.10	691	.57	52	632	.52	42
Northern Ontario	4,059	.89	2,235	.49	55	1,824	.40	141
Manitoba	68	.77	43	.49	65	25	.28	2
Saskatchewan	377	1.30	181	.62	48	197	.68	68
British Columbia	555	.99	176	.31	32	379	.67	n.a.
TOTAL	28,785	1.83	10,583	.67	37	18,204	1.16	n.a.

[1] Transportation costs are based on averages for each region.

Source: Canada Post Corporation.

Table 3

Air Cargo Rates and Service to Selected Air Stage Communities, 1990

Community	Cargo rate for food		Carrier	Origin	Air route distance (km)
	$ per kg	$ per tonne-km			
Baffin, N.W.T.					
Iqaluit	1.88	.81	First Air	Ottawa	2,334
	1.69	.72	Canadian	Ottawa	2,334
	1.69	.73	Canadian	Montreal	2,309
Pangnirtung	3.43	1.31	First Air	Ottawa	2,616
Broughton Island	3.76	1.59	First Air	Ottawa	2,362
Pond Inlet	5.38	1.72	First Air	Ottawa	3,133
Arctic Bay/Nanisivik	3.34	1.06	Canadian	Montreal	3,152
Hall Beach	2.04	.78	Canadian	Montreal	2,627
Resolute	3.34	.97	Canadian	Montreal	3,447
Grise Fiord	2.16	5.61	Kenn Borek	Resolute	385
Remainder of N.W.T.					
Rankin Inlet	1.04	2.23	Calm Air	Churchill	466
Repulse Bay	3.79	3.91	Calm Air	Churchill	969
Gjoa Haven	1.79	1.25	First Air	Yellowknife	1,428
Snowdrift	.88	4.51	Ptarmigan	Yellowknife	195
Sachs Harbour	2.26	4.33	Aklak Air	Inuvik	522
James Bay and Northern Quebec					
Waskaganish	2.42	6.05	Air Creebec	Val d'Or	400
Wemindji	.51	5.00	Air Wemindji	La Grande	102
Kuujjuarapik	.70	3.78	Air Inuit	La Grande	185
Povungnituk	5.66	7.86	Air Inuit	La Grande	720
Salluit	7.75	7.95	Air Inuit	La Grande	975
Kuujjuaq	1.32	.87	Canadian	Montreal	1,510
Quebec North Shore					
	2.14	3.20	Trans Côte	Sept-Iles	669
	2.82	4.22	Transfair	Sept-Iles	669
Gethsémanie	1.66	4.15	Trans Côte	Sept-Iles	400
	.73	1.83	Intair	Sept-Iles	400
	1.98	4.95	Transfair	Sept-Iles	400

Table 3 (cont'd)

Community	Cargo rate for food		Carrier	Origin	Air route distance (km)
	$ per kg	$ per tonne-km			
Labrador					
Nain	1.54	3.96	Labrador Airways	Goose Bay	389
Rigolet	.99	2.68	Labrador Airways	St. Anthony	369
Goose Bay	1.31	.79	First Air	Ottawa	1,665
	.74	.80	Canadian	St. John's	922
Cartwright	.88	3.33	Labrador Airways	St. Anthony	264
Ontario					
Big Trout Lake	1.15	4.32	Air Creebec	Pickle Lake	266
	1.34	5.04	Bearskin	Pickle Lake	266
	1.21	4.55	V. Kelner Airways[1]	Pickle Lake	266
Peawanuck	2.05	2.67	Air Creebec	Kapuskasing	767
Fort Severn	2.42	4.37	Bearskin	Pickle Lake	554
	2.42	4.37	V. Kelner Airways[1]	Pickle Lake	554
Sachigo Lake	.99	1.78	Sabourin Lake	Red Lake	556
	1.32	3.11	V. Kelner Airways[1]	Pickle Lake	424
Manitoba					
Island Lake	.99	2.07	Northland Air Manitoba	Winnipeg	479
	1.14	2.38	Perimeter	Winnipeg	479
Lac Brochet	.87	4.42	Calm Air	Lynn Lake	197
Saskatchewan					
Fond-du-Lac	2.55	4.78	Time Air/Points North	La Ronge	534
	2.86	5.36	Athabaska Airways[2]	La Ronge	534
Stony Rapids	1.54	3.35	Time Air/Points North	La Ronge	460
	2.86	6.22	Athabaska Airways[2]	La Ronge	460
Alberta					
Fort Chipewyan	.82	3.47	Canadian	Fort McMurray	236
British Columbia					
Fort Ware	.60	2.12	Northern Thunderbird[3]	Mackenzie	283

Table 3 (cont'd)

Community	Cargo rate for food		Carrier	Origin	Air route distance (km)
	$ per kg	$ per tonne-km			
Yukon					
Old Crow	3.40	4.25	Alkan Air	Whitehorse	799

[1] Unit toll rate. Lower charter rates are available.

[2] Rate shown is for perishables, which is twice the general commodity rate.

[3] Incidental freight rate - only limited volumes of freight accepted.

Table 4

Surface Transportation to Air Stage Communities

Region	Total number of communities served		Marine service
	road[1]	marine[2]	
Northwest Territories			
Baffin	-	14	EAS/MTL
Keewatin	-	7	EAS/NTCL
Kitikmeot [3]	-	5	NTCL
Inuvik [4]	6	9	NTCL
Fort Smith [5]	5	2	NTCL
Quebec			
James Bay and Northern Quebec [6]	1	16	EAS
North Shore [7]	7	11	RN/private
Iles-de-la-Madeleine [8]	8	3	CTMA
Labrador [9]	8	13	MA and other
Northern Ontario [10]	8	3	MTL
Manitoba	14	4	MM/HT and other
Saskatchewan	1	6	Private
Alberta	2	1	Private
British Columbia	-	7	Private
Yukon [11]	-	-	-

1 Service is by winter road except where indicated in subsequent notes.

2 EAS - Eastern Arctic Sealift (operates August to October and delivers to most communities once; in Quebec includes federal and provincial sealift)
MTL - Moosonee Transportation Ltd. (summer only)
NTCL - Northern Transportation Company Ltd. (summer only - 75 days)
CTMA - Coopérative de Transport Maritime et Aérien (April 1 to January 31)
RN - Relais Nordik Inc. (April 1 to mid-January)
MA - Marine Atlantic (July 1 to 2nd week of November)
MM/HT - Manitoba Ministry of Highways and Transportation (mid-April to mid-November)

[5] Pelly Bay is only accessible by air.

[6] Colville Lake is only accessible by air. Fort McPherson has year-round road access, except during freeze-up and breakup.

[8] Rae Lakes and Snare Lake are only accessible by air.

[9] Nemiscau has year-round road access

[7] Chevery and Baie-des-Moutons are only accessible by air, but may receive goods from adjacent communities with marine service. Aguanish is connected by a permanent road to Natashquan which receives marine service from Relais Nordik. Blanc-Sablon, Bradore Bay, Middle Bay and Rivière-Saint-Paul are connected by a permanent road to the port of Lourdes-de-Blanc-Sablon which receives marine service from Relais Nordik Inc. and a private carrier out of St. Barbe, Newfoundland.

[9] Leslie is only accessible by air. All other communities on Iles-de-la-Madeleine except Entry Island are located on the permanent road network of the islands. Entry Island receives air and marine services.

[9] Only 13 communities in Labrador are serviced by the Marine Atlantic system. The remaining communities except Churchill Falls receive either some form of marine resupply, or are connected by permanent road to a community receiving marine resupply.

[10] Angling Lake (Wapekeka), Big Trout Lake, Cat Lake, Deer Lake, Fort Hope (Eabamet Lake), Kasabonika Lake, Kingfisher Lake, Lac Seul, Lansdowne House, North Spirit Lake, Ogoki (Martin Falls), Peawanuck, Summer Beaver, Webequie and Wunnumin Lake are only accessible by air.

[11] Old Crow is only accessible by air.

Table 5

Number and Population of Air Stage Communities by Region, 1986

Region	No. of communities	Population	Average population
Northwest Territories			
Baffin [1]	14	9,675	691
Keewatin	7	4,973	710
Kitikmeot	6	3,628	605
Inuvik	10	5,016	502
Fort Smith	8	1,283	160
Quebec			
James Bay and Northern Quebec	18	9,254	514
North Shore	19	7,675	404
Iles-de-la-Madeleine [2]	9	14,532	1,615
Labrador	25	16,624	665
Northern Ontario [3]	25	11,539	462
Manitoba	17	12,242	720
Saskatchewan	5	2,251	450
Alberta	2	1,733	867
British Columbia [4]	19	n.a.	n.a.
Yukon	1	232	232
Other [5]	4	812	203
Total [6]	**189**	**101,469**	**597**

1 Excluding Eureka, Mould Bay, and Polaris, which are weather stations and a mine site with no recorded usage of commercial air stage service.

2 There are nine air stage communities serving all of the Iles-de-la-Madeleine. The average population figure shown represents the average number of persons served by each air stage office and is based on the total population of the islands and not just that of the communities where post offices are located.

3 Population includes an estimate of 8,025 for incompletely enumerated reserves in northern Ontario, based on status Indian population on December 31, 1986.

4 It is not possible to identify the population of the regions served by the air stage offices in British Columbia.

5 Includes Great Harbour Deep, Newfoundland; Pictou Island, Nova Scotia; Isle aux Grues, Quebec; and Pelee Island, Ontario.

6 Total population and the total average population per community exclude the 19 air stage communities in British Columbia.

Source: Statistics Canada, 1986 Census of Canada.

Table 6

Population of Air Stage Communities by Region, 1981-1989

Region	Population				Population, 1986			
	1981 census	1986 census	1989 estimate	% change 1981-1986	Native[1] no.	%	Non-native[1]	Under 15 (%)
N.W.T.								
Baffin	8,119	9,675	10,409	19	7,865	82	1,715	39
Keewatin	4,289	4,973	5,390	16	4,370	88	580	40
Kitikmeot	3,135	3,628	3,998	16	3,160	89	405	38
Inuvik	4,297	5,016	4,980	17	4,105	83	840	34
Fort Smith	1,138	1,283	1,420	13	1,195	95	60	35
QUEBEC								
James Bay and Northern Quebec	7,444	9,254	10,209	24	8,730	95	470	41
North Shore	7,537	7,675	n.a.	2	1,285	17	6,375	28
Iles-de-la-Madeleine	14,130	14,532	n.a.	3	20	0	14,365	21
Labrador	15,833	16,624	n.a.	5	4,620	31	11,715	31
Northern Ontario[2]	10,449	11,539	13,170	10	11,480	100	20	44
Manitoba	9,398	12,242	n.a.	30	11,720	99	175	44
Saskatchewan	4,275	2,251	2,892	-47	1,740	98	35	49
Alberta	1,578	1,733	n.a.	10			not available	
British Columbia[3]		not available					not available	
Yukon	243	232	266	-5	205	87	25	28
Other[4]	726	812	n.a.	12			not available	
Total	**92,591**	**101,469**	**106,350[5]**	**10**	**80,315**	**80**	**36,780**	**35**

[1] Native and non-native populations do not add to the total population shown for 1986 because the native and non-native figures exclude inmates of institutions and because of random rounding. Percentages are based on the sum of native and non-native populations. Persons indicating both a native and non-native ethnic origin are classified here as native.

[2] Figures for 1986 include an estimate of 8,025 for incompletely enumerated reserves in northern Ontario, based on status Indian population on December 31, 1986.

[3] It is not possible to identify the population of the regions served by the air stage offices in British Columbia.

[4] Includes Great Harbour Deep, Newfoundland; Pictou Island, Nova Scotia; Isle-aux-Grues, Quebec; and Pelee Island, Ontario.

[5] Based on 1986 population for Quebec North Shore, Iles-de-la-Madeleine, Labrador, Manitoba, Alberta and Other.

Table 7

Employment in Air Stage Communities by Region, 1986

Region[1]	Population 15+			Native Population 15+		
	Total	Employed no.	Employed[2] %	Total	Employed no.	Employed[2] %
Northwest Territories						
Baffin	5,875	2,840	48.3	4,550	1,685	37.0
Keewatin	2,960	1,345	45.4	2,535	965	38.1
Kitikmeot	2,240	900	40.2	1,950	645	33.1
Inuvik	3,230	1,490	46.1	2,805	985	37.8
Fort Smith	830	265	31.9	790	220	27.8
Quebec						
James Bay and Northern Quebec	5,445	2,050	37.6	5,060	1,715	33.9
North Shore	5,580	1,645	29.6	800	110	13.8
Iles-de-la-Madeleine	11,360	5,875	51.7		not available	
Labrador	11,410	4,970	43.6	2,955	970	32.8
Northern Ontario[3]	1,970	565	28.7	1,930	520	26.9
Manitoba	6,530	1,560	23.9	6,350	1,395	22.0
Saskatchewan	730	190	26.0	695	165	23.7
Yukon	165	70	42.4	145	45	31.0
Total	**58,305**	**23,765**	**40.8**	**30,365**	**9,420**	**31.0**

[1] Regional figures reflect the sum of those air stage communities where employment data were available.

[2] Persons employed as a percentage of the population 15+.

[3] Figures for the population 15+ and number employed are not indicative of the northern Ontario situation, since most air stage communities were incompletely enumerated reserves or settlements in the 1986 Census.

Source: Statistics Canada. 1986 Census of Canada. Special tabulations for the Strategic Analysis Division, DIAND.

Table 8

Income in Air Stage Communities By Region, 1985

Region [1]	Total Income $000	Population	Income per capita $	Native Income $000	Native population	Native Income per capita
Northwest Territories						
Baffin	74,613	9,665	7,720	34,999	7,975	4,387
Keewatin	32,411	4,975	6,515	20,317	4,420	4,597
Kitikmeot	23,906	3,635	6,577	14,519	3,220	4,509
Inuvik	38,173	4,495	8,492	22,357	3,675	6,083
Fort Smith	2,829	615	4,599	2,128	585	3,638
Quebec						
James Bay and Northern Quebec	54,259	9,250	5,866	41,952	8,235	5,094
North Shore	49,860	7,564	6,592	2,905	1,285	2,260
Iles-de-la-Madeleine	131,550	14,390	9,142		not available	
Labrador	124,345	14,760	8,424	23,484	4,185	5,631
Northern Ontario [2]	10,875	2,930	3,643	9,773	2,890	3,382
Manitoba	42,679	11,435	3,732	38,544	11,225	3,434
Saskatchewan	7,529	1,770	4,254	6,910	1,740	3,971
Total	592,828	85,484	6,935	217,849	49,415	4,409

[1] Regional figures reflect the sum of those air stage communities where income information was available. Population figures therefore differ from those presented elsewhere.

[2] Aggregate income and population figures are not indicative of the northern Ontario situation, since most air stage communities were incompletely enumerated reserves or settlements in the 1986 Census.

Source: Statistics Canada. 1986 Census of Canada. Special tabulations for the Strategic Analysis Division, DIAND.

Table 9

Total Income of Unemployed Employable Social Assistance Recipients, August 1990

Region	Basic Assistance[1] ($)	Northern Allowance ($)	Family Allowance ($)	Child Tax Credit[2] ($)	Federal Sales Tax Credit[3] ($)	Provincial Tax Credit[4] ($)	Total Income (excluding earnings exemption) ($)	Earnings Exemption ($)
TWO ADULTS AND TWO CHILDREN								
N.W.T. Scale 3 (Arviat)	629		67	96	25		816	100
5 (Broughton Island)	714		67	96	25		901	100
6 (Rankin Inlet, Pond Inlet, Iqaluit)	757		67	96	25		944	100
7 (Arctic Bay, Pangnirtung)	799		67	96	25		986	100
8 (Repulse Bay)	841		67	96	25		1,028	100
10 (Gjoa Haven)	926		67	96	25		1,113	100
Quebec	830[a]		84	96	25		1,035	53
Labrador	531	88[5]	67	96	25		718	100
Northern Ontario	829[6]	190[7]	67	96	25	25	1,231	175
Northern Manitoba	628	105[8]	67	96	25	35	956	50
Northern Saskatchewan	633	100[9]	67	96	25		921	100
Alberta	634		74	96	25		828	1'5
British Columbia	544		67	96	25		731	100
ONE ADULT AND THREE CHILDREN								
N.W.T. Scale 3 (Arviat)	629		100	144	21		894	100
5 (Broughton Island)	714		100	144	21		979	100
6 (Rankin Inlet, Pond Inlet, Iqaluit)	757		100	144	21		1,022	100
7 (Arctic Bay, Pangnirtung)	799		100	144	21		1,064	100
8 (Repulse Bay)	841		100	144	21		1,106	100
10 (Gjoa Haven)	926		100	144	21		1,191	100
Quebec	634[a]		180	144	21		979	84
Labrador	481	88[5]	100	144	21		746	40
Northern Ontario	858[6]	187[7]	100	144	21	25	1,335	175
Northern Manitoba	612	108[8]	100	144	21	35	1,019	50
Northern Saskatchewan	590	100[9]	100	144	21		955	100
Alberta	592		112	144	21		868	115
British Columbia	544		100	144	21		809	100

[1] Excludes shelter and utilities costs. Rates of assistance are long-term in Manitoba and Saskatchewan. The Basic Assistance scales include a budget for food, clothing, personal needs and household supplies (maintenance). In Newfoundland and Labrador and Quebec, utilities are normally included in the basic assistance payment. In Newfoundland and Labrador the cost of utilities is set at $74 and in Quebec the cost is set at $50. These amounts have been deducted to arrive at the amount of basic assistance shown here. Elsewhere, social assistance recipients receive a separate shelter allowance which covers rent and utilities, i.e., fuel, electricity and water. All applicants submit to a "needs test" and assistance is provided according to a scale of needs based on the number of dependants claimed by the applicant. The amounts indicated are the maximum allowable. The amounts shown also assume that there are no other transfer payments such as Canada Pension Plan, Old Age Security, Veterans' Allowances, Workers' Compensation, Unemployment Insurance, strike pay, pension income, training allowances, income from tenants, alimony, inheritances, insurance benefits, income from dependent children, liquid assets or real assets (unless considered as necessities for family requirements such as a car or truck).

[2] Based on the credit for the 1989 taxation year, payable in 1990, prorated to a monthly basis.

[3] Sales tax credit in Ontario; cost of living tax credit in Manitoba; both were prorated to a monthly basis. Some additional provincial tax credits may increase slightly the incomes of those on social assistance. Since most people on social assistance in remote communities have low shelter costs, any income from property tax credits is considered negligible.

[4] Amount payable when the applicant has formally indicated an intention to participate in an employability measure, e.g., training, community service, wage subsidization, or job counselling, but no such measure is available at time of request. In northern Quebec the Société d'habitation du Québec applies a fixed rate shelter cost (including utilities) to social assistance recipients of $163 for a three bedroom house. Since this shelter cost is $22 less than the minimum shelter cost ($185) allowable in order to receive the maximum basic assistance, the basic assistance is reduced by $22. In the Cree area, Canada Mortgage and Housing Corporation (CMHC) applies a shelter cost (including utilities) equal to 25 percent of gross family income. (Almost all of the housing in the Cree region is CMHC financed.)

[5] The Labrador fuel allowance, available between November 1 and April 30, is not included in the total.

[6] General Welfare Assistance. Includes an estimated $100 from unused portion of automatic Basic Shelter Allowance.

[7] Paid to households living north of 50° latitude in Ontario.

[8] Increase of 25 percent on food component of Basic Assistance. In Manitoba, a supplementary food allowance is provided for recipients residing north of 53° latitude or in an area east of Lake Winnipeg and north of 51° 12' latitude.

[9] Northern food allowance of $25 per beneficiary.

Table 10

Social Assistance Beneficiaries and Payments in Air Stage Communities, 1988-1989 Fiscal Year

Region	Beneficiaries[1]		Basic Needs Payments[2]		
	No.	Percent of population	$ million	$ per capita	Federal government contribution $ million
Northwest Territories	**6,584**	**26**	**15.3**	**599**	**7.7**
Baffin	2,387	23	5.5	536	2.7
Keewatin	1,479	28	3.5	676	1.8
Kitikmeot	1,435	37	3.8	969	1.9
Inuvik	851	17	1.9	380	0.9
Fort Smith	1,358	32	0.7	512	0.3
Labrador[3]	**1,441**	**9**	**3.6**	**222**	**1.8**
Central	308	4	0.9	113	0.5
North Coast	823	24	2.1	623	1.1
South Coast	310	6	0.6	116	0.3
Quebec					
James Bay	217	6	0.9	269	0.5
Northern Quebec	1,455	21	3.7	542	1.9
North Shore	1,792	25	4.6	649	3.6
Northern Ontario[4]	**6,263**	**56**	**16.0**	**1,432**	**13.5**
Manitoba[3]	**8,488**	**70**	**16.9**	**1,385**	**16.7**
Saskatchewan	**1,527**	**53**	**3.3**	**1,133**	**3.2**
Alberta	**733**	**42**	**1.1**	**635**	**1.0**
Total	**28,500**		**65.4**		**49.8**

[1] Average number of beneficiaries per month. Beneficiaries include recipients of social assistance and their dependants.

[2] Basic needs include food, clothing, household supplies and personal care, as well as any special northern or food allowances, but not payments for "special needs" as defined by the relevant provincial and territorial governments. Basic shelter costs are also included in Ontario and Quebec. Fuel costs are included except in the Northwest Territories and Saskatchewan.

[3] Data are for 1989 calendar year, and include shelter costs for beneficiaries who are lodgers.

[4] Figures are for status Indians only, and exclude Lansdowne House, Peawanuck, Webequie and Lac Seul for which no data were available.

[5] Including shelter costs for beneficiaries other than status Indians.

Table 11

Northern Food Basket: Weekly Quantities Required for a Family of Four

Food Group		Quantity
DAIRY PRODUCTS		
	Evaporated Milk	10.76 L[1]
	Milk 2% UHT or Fluid	3.88 L
	Cheddar Cheese, Medium	12 g
	Process Cheese Slices	57 g
	Skim Milk Powder	28 g
	TOTAL	**15.25 L**
EGGS		
	Grade A Large	1.5 doz
MEATS, POULTRY, FISH		
	Chicken, Legs or Whole	1.72 kg
	Pork Chops, Loin	570 g
	Hamburger or Frozen Patties	1.01 kg
	Canned Pink Salmon	60 g
	Sardines, Soya Oil	60 g
	T Bone Steak	70 g
	Sliced Ham	60 g
	TOTAL	**3.55 kg**
MEAT ALTERNATES		
	Bologna	60 g
	Canned Luncheon Meat, Pork	60 g
	Canned Baked Beans	60 g
	Peanut Butter	70 g
	Canned Beef Stew	890 g
	TOTAL	**1.20 kg**
CEREAL AND BAKERY PRODUCTS		
	Flour, All Purpose	1.66 kg
	Pilot Biscuits	1.45 kg
	Soda Crackers	1.03 kg
	Bread, Enriched, White	1.94 kg
	Macaroni/Spaghetti	840 g
	Rice, Long Grain, White	340 g
	Rolled Oats	60 g
	Corn Flakes	600 g
	Macaroni and Cheese Dinner	840 g
	TOTAL	**6.90 kg**

Food Group		Quantity
CITRUS FRUIT AND TOMATOES		
	Oranges	300 g
	Apple Juice, Frozen	1145 ml[1]
	Orange Juice, Frozen	475 ml[1]
	Canned Tomatoes	1115 ml
	TOTAL	**3.20 kg**
OTHER FRUIT		
	Apples	4.5 kg
	Bananas	1.10 kg
	Canned Fruit Cocktail	640 g
	TOTAL	**6.25 kg**
POTATOES		
	Fresh Potatoes	5.9 kg
	Frozen French Fried Potatoes	1.2 kg
	TOTAL	**7.1 kg**
OTHER VEGETABLES		
	Carrots	970 g
	Canned Peas	1.43 kg[2]
	Canned Kernel Corn	3.08 kg[2]
	Onions	820 g
	TOTAL	**6.30 kg**
FATS AND OILS		
	Margarine, Soft	160 g
	Butter	160 g
	Salad Oil	120 g
	Lard	510 g
	TOTAL	**0.95 kg**
SUGAR AND OTHER SWEETS		
	Sugar, White	390 g
	Fruit Drink Crystals, with Vitamin C	560 g
	TOTAL	**0.95 kg**

[1] Reconstituted quantities

[2] Drained weights

Table 12

Components of Cost of Thrifty, Nutritious Northern Food Basket for a Family of Four for One Week, 1990

Community	Postage on perishables		Total cost of perishables			Cost of non-perishables		Total cost of food basket	
	$	%	$	%	Index[1]	$	Index[1]	$	Index[1]
Arctic Bay	70	24	145	50	299	147	189	292	231
Pond Inlet	70	24	150	52	308	140	180	290	230
Broughton Island	70	26	147	54	301	127	163	273	216
Pangnirtung	70	26	138	52	284	126	162	265	209
Iqaluit[2]	n.a.	n.a.	109	45	223	131	168	240	189
Rankin Inlet	n.a.	n.a.	110	43	225	146	187	256	202
Repulse Bay	n.a.	n.a.	139	49	286	145	186	284	225
Gjoa Haven	n.a.	n.a.	144	51	295	139	178	283	223
Yellowknife	n.a.	n.a.	63	39	129	97	125	160	126
Salluit	21	10	91	43	187	119	153	211	166
Povungnituk	21	11	83	42	170	116	148	198	157
Kuujjuaq	21	11	76	40	156	115	147	191	151
Kuujjuarapik	21	11	76	40	156	116	149	192	152
Wemindji	21	10	85	42	175	120	154	205	162
Nemiscau	n.a.	n.a.	72	39	148	113	146	186	147
Val d'Or	n.a.	n.a.	45	36	93	81	104	126	100
Big Trout Lake[2]	n.a.	n.a.	84	40	172	128	164	211	167
Sachigo Lake	17	8	94	44	193	121	156	215	170
Fort Severn	17	7	104	42	213	140	180	244	193
Thunder Bay	n.a.	n.a.	56	41	115	80	103	136	108
Nain	n.a.	n.a.	66	43	135	87	112	153	121
Rigolet	n.a.	n.a.	66	39	135	101	130	167	132
West St. Modeste	n.a.	n.a.	63	42	129	87	112	150	118
Goose Bay	n.a.	n.a.	68	43	140	90	115	158	125
St. John's	n.a.	n.a.	56	41	114	79	101	134	106
Fort Ware	n.a.	n.a.	106	45	218	132	170	239	188
Ottawa	n.a.	n.a.	49	38	100	78	100	127	100

n.a. Not applicable, i.e. communities not receiving food mail.

1 Cost as a percentage of cost in Ottawa. Percentages are calculated from unrounded figures on costs.

2 Iqaluit and Big Trout Lake are eligible for food mail service but the stores there are not currently receiving food through Canada Post.

Table 13

Prices of Selected Food and Grocery Items in Selected Northern Communities, April - July, 1990 [1]

Food/Grocery Item	Ottawa	Pond Inlet	Salluit	Fort Severn	Yellowknife	Repulse Bay	Gjoa Haven	Nain
milk, 2%, 1 L	1.29	-	2.29	2.66	1.19	4.03	3.99	-
milk, 2%, UHT, 1 L	-	4.15	1.81	-	1.38	3.93	4.19	-
milk, evaporated, 355 ml	0.89	1.68	1.45	1.58	1.07	1.72	1.62	1.10
bread, 675 g	1.09	3.49	3.95	2.19	-	-	3.29	1.95
bread, 567 g	-	-	-	-	1.15	3.03	-	-
flour, 5 kg	8.57	8.89	9.52	13.74	6.85	11.17	12.89	-
flour, 7 lb	-	-	-	-	-	-	-	3.40
sugar, 2 kg	0.89	4.85	4.25	4.59	2.79	5.84	4.89	2.22
baking powder, 450 g	3.29	4.94	5.11	4.80	3.87	5.28	4.88	3.73
eggs, large, 1 doz	1.09	3.79	2.89	2.38	1.73	2.99	3.89	3.23
apples, kg	1.68	6.88	2.85	3.66	1.08	5.43	6.59	2.74
potatoes, 5 lbs	1.99	8.75	4.85	4.98	3.39	7.59	8.94	1.04
peas, canned, 14 oz	0.89	1.99	1.59	2.09	1.48	2.04	1.93	1.30
apple juice, 3 x 250 ml	1.29	-	2.97	2.97	2.23	-	1.55	-
apple juice, 1 L	0.73	3.85	1.72	3.66	1.25	1.94	2.11	1.59
macaroni and cheese dinner, 225 g	0.49	1.52	1.42	1.45	0.90	1.52	1.41	1.05
luncheon meat, 340 g	1.79	2.75	2.91	2.89	2.47	3.14	3.07	2.26
peanut butter, 500 g	1.99	3.80	3.74	3.72	2.74	3.37	3.78	2.31
ground beef, kg	3.04	7.99	8.80	6.50	5.29	10.68	7.98	5.68
chicken legs, kg	3.73	10.23	7.03	9.73	6.39	10.00	8.52	3.87
infant formula, 450 g	9.99	14.33	19.56	-	13.39	13.10	14.55	-
tea, 72 bags	2.49	3.22	4.92	4.55	3.83	4.71	3.77	2.88
diapers, 28	10.99	-	18.77	21.99	15.41	19.80	18.29	17.30
potato chips, 200 g	2.39	2.89	2.15	2.99	1.89	2.99	2.98	-
Coca Cola, 355 ml	0.42	1.20	1.15	1.20	0.84	1.20	1.50	-
spring water, 1 L	0.32	-	1.56	-	3.07	-	-	-
Tang, 276 g	1.19	2.52	2.32	2.99	1.52	2.06	2.29	1.15

[1] Prices are the lowest price available for each product in each community except in Ottawa, where the price is from one supermarket.

Table 14

Feeding a Family of Four[1] on Social Assistance or Minimum Wage

Region	Community	Monthly food cost for family of four	Total monthly social assistance income[2]	Percent of total social assistance income required for food	Total monthly income on minimum wage[3]	Percent of minimum wage income required for food
		$	$	%	$	%
Baffin Region	Iqaluit	1,038	944	109	1,054	98
	Pangnirtung	1,148	986	116	1,054	109
	Broughton Island	1,184	901	131	1,054	112
	Pond Inlet	1,259	944	133	1,054	119
	Arctic Bay	1,267	986	128	1,054	120
Keewatin Region	Rankin Inlet	1,108	944	117	1,054	105
	Repulse Bay	1,241	1,028	121	1,054	118
Kitikmeot Region	Gjoa Haven	1,225	1,033	119	1,054	116
Fort Smith Region	Yellowknife	693	731	95	1,054	66
Northern Quebec	Val d'Or	547	1,035	53	1,072	51
	Wemindji	889	1,035	86	1,072	83
	Nemiscau	804	1,035	78	1,072	75
	Kuujjuarapik	832	1,035	80	1,072	78
	Povungnituk	860	1,035	83	1,072	80
	Salluit	912	1,035	88	1,072	85
	Kuujjuaq	827	1,035	80	1,072	77
Newfoundland/Labrador	St. John's	582	630	92	924	63
	Goose Bay	683	630	108	924	74
	Rigolet	723	718	101	924	78
	Nain	662	718	92	924	72
	West St. Modeste	649	718	90	924	70
Northern Ontario	Thunder Bay	591	941	63	1,079	55
	Big Trout Lake	916	1,231	74	1,079	85
	Sachigo Lake	929	1,231	75	1,079	86
	Fort Severn	1,057	1,231	86	1,079	98
Southern Ontario	Ottawa	548	941	58	1,079	51
British Columbia	Fort Ware	1,034	731	141	1,054	98

1. Reference family includes a woman (25-49 years), a man (25-49 years), a boy (13-15 years) and a girl (7-9 years).
2. Includes basic allowance (food, clothing, personal care), northern allowance, child tax credit, Family Allowance, and federal and provincial sales tax credits. Excludes income and expenditure for housing, utilities or special needs.
3. Includes adult hourly minimum wage for a 40-hour week, child tax credit, Family Allowance, and federal and provincial sales tax credits.

Table 15

Postage and Air Cargo Costs for Perishable Items in the Northern Food Basket in Selected Air Stage Communities, 1990

Region Community	Cost of basket[1]	Current postage on perishable items in basket[2]		Air cargo for perishable items in basket[2]		Increase in cost of basket using air cargo		Cost of basket using air cargo	Air cargo service
		per kg	Total	per kg	Total				
	$	$	$	$	$	$	%	$	
Baffin									
Arctic Bay	292	2.33	70	3.34	100	30	10	322	Canadian from Montreal
Broughton Island	273	2.33	70	3.76	113	43	16	316	First Air from Ottawa
Pangnirtung	265	2.33	70	3.43	103	33	12	298	First Air from Ottawa
Pond Inlet	290	2.33	70	5.38	161	91	31	381	First Air from Ottawa
Northern Quebec									
Kuujjuaq	191	.71	21	1.32	40	19	10	210	Canadian from Montreal
Kuujjuarapik	192	.71	21	.70	21	-	-	192	Air Inuit from La Grande
Povungnituk	198	.71	21	5.66	170	149	75	347	Air Inuit from La Grande
Salluit	211	.71	21	7.29	219	198	94	409	Canadian from Montreal to Kuujjuaq; Air Inuit from Kuujjuaq
Ontario									
Fort Severn	244	.58	17	2.42	73	56	23	300	Beerskin or V. Kelner from Pickle Lake
Sachigo Lake	215	.58	17	1.32	40	23	11	238	V. Kelner from Pickle Lake
Saskatchewan									
Fond-du-Lac	n.a.	.58	17	2.55	77	60	n.a.	n.a.	Time Air from La Ronge

1. The Northern Food Basket will provide a basic nutritious diet for a family of four persons (two adults and two children) for one week. Prices are based on the lowest prices available for each item in the community concerned. The amount shown includes both perishable and non-perishable items.
2. Net weight of perishable food in Northern Food Basket (i.e. 26 kg) plus 15 percent for packaging, loss, and spoilage, for a total of 30 kg, assumed to be shipped in 9-kilogram parcels for which the 10-kilogram parcel rate is charged.
3. Based on lowest air cargo rates available to the general public. Lower rates may be negotiable in some instances.